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A
THERAPEUTIC ARRANGEMENT
AND
SYLLABUS
OF
MATERIA MEDICA.

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INTRODUCTION.

THIS book being intended more particularly for the use of the Students at the Birmingham School of Medicine, the same arrangement of medicinal substances is here adopted, as that used in my Lectures on *Materia Medica* and Therapeutics.

In the first part of the work, medicaments are classed according to their therapeutic agency; in the second part, those derived from the animal and vegetable kingdoms are respectively arranged according to the systems of Cuvier and Jussieu, and the minerals are placed in alphabetical order.

I have chosen the systems of Cuvier and Jussieu in preference to that of Linnæus, because by the former the attention of the Pupil is directed to the structure and physiology of animals and plants, while the latter has reference to their external appearance alone.

In the therapeutic arrangement, it has been my en-

deavour to devise such a system as may be convenient for the purposes of lecturing, and may remind the Student of the various modes in which medicines operate upon the body. With this view, I have disregarded *their Chemical Properties*, which will be described in the Natural History arrangement, and have classed all medicinal substances according to their physiological action.

Thus are formed six classes, and these again are divided into orders.

I have as far as possible adhered to the Cullenian nomenclature, though there will be found a few exceptions to this rule in my tables. Thus, stimulants are divided into three orders; the first of which, namely, secretory stimulants, is new in therapeutics. That it is, however, impossible to dispense with this class, will be at once perceived, by considering the nature of the medicaments which it contains. Mercury is generally allowed to operate upon the whole glandular system. It acts upon the mesenteric glands, upon the liver, &c., and upon the salivary glands; indeed, this last effect is only symptomatic of its general operation. The medicinal action of iodine is not so well understood, but there is reason to suppose that it does not differ widely from mercury. It is said to have proved diuretic in dropsies, and to have removed disease of the liver, while its efficacy in bronchocele has been long ascertained. Iodine also acts upon the salivary glands, for when rubbed on the skin several days together it becomes perceptible to the taste.

In my arrangement, sedatives form the first *order* of medicines which act upon the *heart* and *arteries*. I have inserted them in this place because they perceptibly depress the circulation; nevertheless, I believe sedatives act immediately upon the nervous system, and by their influence upon the nerves of the heart deprive that organ of its irritability or vitality. Hence, the stimulating properties of the blood do not produce their usual effect upon the heart; its contractions are therefore feeble, and the circulation is not carried on with its accustomed vigour. In support of this view of the *modus operandi* of sedatives, it may be remarked that in very large doses most of these medicines are narcotic poisons, thus displaying their powerful influence over the brain and nerves. I have, however, preferred a practical arrangement to one formed entirely on theory; but, as this subject will be farther discussed in my lectures, I now leave the therapeutic arrangement to speak for itself.

The chemical analyses which will be found in the following pages are selected from the best authorities I could find; and in the list of medicines I have noticed all the articles of the *Materia Medica* of the London College of Physicians, together with some other substances which have been lately introduced, or are commonly used in practice.

As many of the most useful medicines are poisonous when administered in large quantity, I have enumerated the principal symptoms which they excite in man, and the morbid appearances which are commonly observed in

those who have fallen victims to their influence. These symptoms and appearances, however, are not invariably the same. In some cases only a few of the symptoms are observable; in others all of them are present, while considerable variety of morbid structure is displayed by dissection.

PART I.

THERAPEUTIC ARRANGEMENT.

AN

ARRANGEMENT OF MEDICINAL SUBSTANCES

ACCORDING TO THEIR THERAPEUTIC PROPERTIES.

CLASS 1.	{ Medicines which act upon the alimentary canal.
CLASS 2.	{ Medicines which act upon the glandular system, and upon the secretory and excretory vessels.
CLASS 3.	{ Medicines which act upon the heart and arteries.
CLASS 4.	{ Medicines which act upon the brain and nervous system.
CLASS 5.	{ Medicines which act upon the muscular fibre.
CLASS 6.	{ Medicines which act upon the skin and external parts, by application to the surface of the body.

CLASS I.

MEDICINES WHICH ACT UPON THE ALIMENTARY CANAL.

ORDERS.

1st. Emetics	{ Medicines which evacuate the stomach by exciting vomiting.
2nd. Cathartics	{ Medicines which expel the fæces by increasing the peristaltic motion of the intestines.
3rd. Anthelmintics	{ Medicines which destroy intestinal worms or expel them from the body.

- | | | |
|---------------------|---|--|
| 4th. Antacids | { | Medicines which counteract acidity in the stomach. |
| 5th. Demulcents... | { | Medicines which lubricate and protect the coats of the alimentary canal. |
| 6th. Antidotes..... | { | Medicines which neutralize poison when received into the stomach. |

CLASS II.

MEDICINES WHICH ACT UPON THE GLANDULAR SYSTEM, AND UPON THE SECRETORY AND EXCRETORY VESSELS.

ORDERS.

- | | | |
|-----------------------------|---|--|
| 1st. Secretory stimulants } | { | Medicines which act upon the whole glandular system. |
| 2nd. Sialagogues ... } | { | Medicines which increase the secretion of saliva. |
| 3rd. Expectorants } | { | Medicines which promote the excretion of mucus or pus from the bronchial tubes. |
| 4th. Errhines | { | Medicines which promote the secretion of mucus in the nostrils. |
| 5th. Diaphoretics .. } | { | Medicines which excite cutaneous exhalation. |
| 6th. Diuretics..... } | { | Medicines which increase the secretion of urine by exciting the action of the kidneys. |
| 7th. Emmenagogues } | { | Medicines which promote the secretion of the menstrual discharge. |

CLASS III.

MEDICINES WHICH ACT UPON THE HEART AND ARTERIES.

ORDERS.

- | | | |
|----------------------|---|--|
| 1st. Sedatives | { | Medicines which diminish the power and velocity of the circulation by their operation on the heart and large arteries. |
| 2nd. Refrigerants... | { | Medicines which diminish the heat of the body by their action on the extreme vessels. |

- | | | |
|---------------------------------|---|--|
| 3rd. Tonics | { | Medicines which invigorate the circulation,
and thus relieve debility or atony. |
| 4th. Arterial
stimulants ... | | |
| | } | Medicines which excite the circulation. |
-

CLASS IV.

MEDICINES WHICH ACT UPON THE BRAIN AND NERVOUS SYSTEM.

ORDERS.

- | | | |
|--------------------------------|---|--|
| 1st. Narcotics | { | Medicines which, by their operation on the
brain and nerves, diminish sensibility, and
induce sleep. |
| 2nd. Antispasmodics | | |
| | } | Medicines which, by their operation on the
nervous system, allay inordinate muscular
action. |
| 3rd. Nervous
stimulants ... | { | Medicines which excite the brain and ner-
vous system, and thereby increase their
irritability and energy. |
| | | |
-

CLASS V.

MEDICINES WHICH ACT UPON THE MUSCULAR FIBRE.

ORDER.

- | | | |
|-------------------|---|--|
| Astringents | { | Medicines which, by inducing contraction of
the muscular fibre, restrain inordinate eva-
cuations and hæmorrhages. |
| | | |
-

CLASS VI.

MEDICINES WHICH ACT UPON THE SKIN AND EXTERNAL PARTS, BY
APPLICATION TO THE SURFACE OF THE BODY.

ORDERS.

- | | | |
|----------------------|---|---|
| 1st. Epispastics ... | { | Medicines which excite external irritation. |
| 2nd. Emollients ... | | |
| | } | Medicines which allay external irritation by
softening the skin. |

Note.—All medicines externally applied (except those which belong to Class VI.) may be considered as stimulant, tonic, sedative, &c. &c., and are therefore arranged in their respective orders.

CLASS I.

ORDER 1.—EMETICS.

Anthemis.	Antimonium.
Ipecacuanha.	Cuprum.
Olivæ oleum.	Zincum.
Sinapis alba.	

ORDER 2.—CATHARTICS.

Aloë.	Ricinus.
Cambogia.	Tabacum.
Colocynthis.	Tamarindus.
Elatarium.	Terebinthinæ oleum.
Helleborus niger.	Tiglii oleum.
Jalapa.	Veratrum.
Linum catharticum.	Potassæ sales.
Manna.	Hydrargyrum.
Pruna.	Magnesia, ejusque sales.
Rhamnus.	Soda, ejusque sales.
Rheum.	

ORDER 3.—ANTHELMINTICS.

Allium.	Spigelia.
Assafœtida.	Tabacum.
Cambogia.	Tiglii oleum.
Dolichos.	Terebinthinæ oleum.
Filix mas.	Ferrum.
Granatum.	Hydrargyrum.
Helleborus fœtidus.	Stannum.
Jalapa.	Sulphur.
Scammonia.	

ORDER 4.—ANTACIDS.

Ammoniæ subcarbonas	Liquor potassæ.
Liquor ammoniæ subcarbonatis.	Creta præparata.
Spiritus ammoniæ.	Liquor calcis.
Cornu ustum.	Magnesia.
Testæ præparatæ.	Magnesiæ subcarbonas.
Potassæ subcarbonas.	Sodæ subcarbonas.
Potassæ carbonas.	Sodæ subcarbonas exsiccata.
Liq. potassæ subcarbonatis.	Sodæ carbonas.

ORDER 5.—DEMULCENTS.

Cetaceum.	Hordeum.
Cera.	Lichen.
Acacia.	Linum.
Althæa.	Malva.
Amygdalæ.	Oryza.
Amylum.	Olivæ oleum.
Avena.	Tragacantha.
Caricæ fructus.	Tussilago.
Cydoniæ semina.	Uvæ passæ.
Glycyrrhiza.	

ORDER 6.—ANTIDOTES.

Albumen.	Saccharum.
Gallæ.	Acida.

Omnes medicinæ Ord. 4.

CLASS II.

ORDER 1.—SECRETORY STIMULANTS.

Iodina.	Hydrargyrum.
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ORDER 2.—SIALAGOGUES.

Mastiche.	Tabacum.
Mezereum.	Hydrargyrum.
Pyrethrum.	

ORDER 3.—EXPECTORANTS.

Cetaceum.	Lichen.
Mel.	Pix liquida.
Allium.	Linum.
Amygdalarum oleum.	Senega.
Ammoniacum.	Scilla.
Assafœtida.	Olivæ oleum.
Glycyrrhiza.	Antimonium
Ipecacuanha.	Ammonia ejusque sales.

Omnes medicinæ Class I., Ord. 5

ORDER 4.—ERRHINES.

Asarum.	Tabacum.
Euphorbiæ gummi resina.	Veratrum.

ORDER 5.—DIAPHORETICS.

Ammonia.	Sassafras.
Camphora.	Sarsaparilla.
Colchicum.	Ulmæ cortex.
Contrayerva.	Potassæ nitræ.
Guaiaacum.	Antimonium.
Ipecacuanha.	Sulphur.
Sambucus.	

ORDER 6.—DIURETICS.

Cantharis.	Cubeba.
Cambogia.	Spartium.
Colchicum.	Resina flava.
Copaiba.	Pix liquida.
Dauci semina.	Acidum aceticum.
Digitalis.	Acidum malicum.
Dulcamara.	Acidum nitricum dilutum.
Juniperus.	Spiritus ætheris nitrici.
Sarsaparilla.	Potassa ejusque sales.
Scilla.	Soda ejusque sales.
Taraxacum.	Sapo.
Terebinthinæ oleum.	Hydrargyrum?
Ulmus.	Iodina?

ORDER 7.—EMMENAGOGUES.

Aloë.	Ruta.
Assafœtida.	Iodina.
Galbanum.	Ferrum.
Helleborus niger.	Hydrargyrum.
Rubia.	Sabinæ folia.
Myrrha.	Sagapenum.

CLASS III.

ORDER 1.—SEDATIVES.

Camphora.	Humulus.
Colchicum.	Digitalis.

Conium.	Tabacum.
Acidum hydrocyanicum.	Plumbi acetas.
Antimonium tartarizatum.	Potassæ nitras.
Veratrum.	

ORDER 2.—REFRIGERANTS.

Aqua frigida.	Potassæ sales.
Acidum aceticum.	E plumbo præparata.
Acidum citricum.	E zinco præparata.
Acidum tartaricum.	

ORDER 3.—TONICS.

Absinthium.	Marrubium.
Acorus calamus.	Menyanthes.
Anthemis.	Myrrha.
Aurantii cortex.	Quassia.
Calumba.	Salix.
Cascarilla.	Simarouba.
Centaurium.	Acidum citricum.
Cinchona.	Acidum nitricum.
Cinchoniæ sulphas.	Acidum muriaticum.
Quininæ sulphas.	Chlorinum.
Cusparia.	Acidum sulphuricum.
Gentiana.	Alumen.
Helenium.	Argenti nitras.
Humulus.	Arsenicum album.
Lupulina.	Bismuthi subnitras.
Krameria.	Cuprum.
Nux vomica.	Ferrum.
Strychnia.	Zincum.
Origanum.	

ORDER 4.—ARTERIAL STIMULANTS.

Cantharis.	Resina flava.
Abietis resina.	Balsamum Tolutanum.
Anisum.	Benzoinum.
Acorus calamus.	Cajeputi oleum.
Armoracia.	Canella.
Balsamum Peruvianum.	Cardamomum.
Carui semina.	Capsicum.
Caryophylli.	Rosmarinus.

Cinnamomum.	Sabina.
Copaiba.	Serpentaria.
Coriandrum.	Styrax.
Cubeba.	Sinapis.
Cuminum.	Terebinthinæ oleum.
Elemi.	Zingiber.
Fœniculum.	Æther sulphuricus.
Guaiacum.	Vinum.
Lavandula.	Alcohol.
Mastiche.	Chlorinum.
Mentha piperita.	Chloruretum calcis.
Mezereum.	Chloruretum sodæ.
Myristica.	Ferrum.
Olibanum.	Petroleum.
Pimenta.	Piper longum.
Pix.	Piper nigrum.
Pyrethrum.	

CLASS IV.

ORDER 1.—NARCOTICS.

Aconitum.	Lauri baccæ.
Belladonna.	Lactucæ extractum.
Conium.	Lactucarium.
Humulus.	Opium.
Lupulina.	Morphia.
Hyoscyamus.	Narcotia.
Camphora.	Stramonium.

ORDER 2.—ANTISPASMODICS.

Ammonia.	Ipecacuanha.
Castoreum.	Opium.
Moschus.	Tabacum.
Assafœtida.	Stramonium.
Belladonna.	Valeriana.
Camphora.	Æther sulphuricus.
Cardamine	Cuprum ammoniatum.
Conium.	Argenti nitras.
Galbanum.	Zinci oxydum.
Hyoscyamus.	Zinci sulphas.
Sagapenum.	

ORDER 3.—NERVOUS STIMULANTS.

Ammonia.	Strychnia.
Allium porrum.	Opoponax.
Allium sativum.	Secale cornutum.
Anethum.	Valeriana.
Assafoetida.	Toxicodendron.
Galbanum.	Æther sulphuricus.
Nux vomica.	Sagapenum.

CLASS V.

ORDER 1.—ASTRINGENTS.

Cornu ustum.	Salix.
Bistorta.	Tormentilla.
Catechu.	Uva ursi.
Granatum.	Alumen.
Hæmatoxylon.	Acidum sulphuricum.
Kino.	Cupri sulphas.
Krameria.	Plumbi Acetas.
Quercus et Gallæ.	Zinci sulphas.
Rosa.	

CLASS VI.

ORDER 1.—EPISPASTICS.

Argenti nitras.	Acida.
Cantharis.	Pix Burgundica.
Ammonia.	Sabina.
Allium sativum.	Sinapis.
Euphorbia.	Antimonium.
Elemi.	Iodina.
Potassa fusa.	Potassa cum calce.

ORDER 2.—EMOLLIENTS.

Cetaceum.	Aqua calida.
Olivæ oleum.	Adeps.
Sevum.	

PART II.

ARRANGEMENT

OF

ANIMALS, VEGETABLES, AND MINERALS,

ACCORDING TO THE CLASSES TO WHICH THEY BELONG
IN NATURAL HISTORY.

MEDICINAL SUBSTANCES

DERIVED FROM THE ANIMAL KINGDOM,

ARRANGED ACCORDING TO CUVIER'S SYSTEM.

I.—VERTEBRATED ANIMALS.

CLASS.—MAMMALIA.

ORDER.—*Rodentia*.

CASTOR FIBER.—THE BEAVER.

Officinal.—Castoreum, Castor.

*Analysis**.—Volatile oil; *Castorine*; carbonate, benzoate, and urate of lime; resinoid of castor; resinoid, with traces of benzoate and urate of lime; resinoid extracted by æther; albumen and phosphate of lime; osmazome, with salts of potassa, soda, and lime; resinoid extracted by water; sulphate of potassa; carbonate of magnesia and ammonia and animal matter.

Medicinal properties.—Antispasmodic.

ORDER.—*Pachydermata*.

SUS SCROFA.—THE HOG.

Officinal.—Adeps, Hog's Lard.

Analysis†.—Stearine; elaine (or oleine).

Medicinal properties.—Demulcent, emollient.

* Brandes.

† Chevreul, *Annales de Chimie*.

ORDER.—*Ruminantia*.

BOS TAURUS ET VACCA.—THE BULL AND COW.

Officinal.—*Fel Bovis*—Ox Gall. *Lac*—Milk.*Ox Gall*—*Analysis**.—Water; salts; oxide of iron; *picro-mel*; resinous matter; yellow matter.*Medicinal properties*.—Anthelmintic, according to some authors; but it is never prescribed in this country.*Milk*—*Analysis*†.—Water; sugar of milk; curd with a little cream; muriate of potass; phosphate of potash; *lactic acid*; acetate of potash, with a trace of lactate of iron; earthy phosphates.

When milk has been exposed to the air during several hours, it spontaneously separates into cream, cheesy matter (commonly called curd), and whey.

Medicinal properties.—Demulcent.

It is a very nutritious food.

MOSCHUS MOSCHIFERUS.—THE MUSK ANIMAL.

Officinal.—Moschus, Musk.*Analysis*‡.—Water; ammonia; gelatine; albumen; fibrin; carbonized matter, soluble in water, insoluble in alcohol; stearine; elaine; cholestrine; oleic acid, combined with ammonia; volatile oil; an acid, the nature of which is not ascertained; hydrochlorate of potassa; ammonia and lime; phosphate and carbonate of lime.*Medicinal properties*.—Antispasmodic.

CERVUS ELAPHUS.—THE STAG.

Officinal.—Cornua, Hartshorns.*Analysis*§.—A large portion of gelatine and phosphate of lime; spirit of ammonia and salts of ammonia are also obtained by distillation.*Medicinal properties*.—Burnt hartshorn is used in some pharmaceutical preparations, but it is an inert substance. Spirit of hartshorn is antacid, and a nervous stimulant.

OVIS ARIES.—THE SHEEP.

Officinal—Sevum, Mutton suet.*Analysis*||.—Stearine; elaine.*Medicinal properties*.—Demulcent, emollient.

* Thenard.

† Berzelius.
§ Fée.‡ Blondeau and Guibourt
|| Chevreul.

ORDER.—*Cetacea*.

PHYSETER MACROCEPHALUS.—SPERMACETI WHALE.

Officinal.—Cetaceum, Spermaceti.

*Analysis**.—Yellow fatty matter; fluid oil; cetine.

Medicinal properties.—Demulcent, emollient.

CLASS—AVES.

ORDER.—*Gallinaceæ*.

PHASIANUS GALLUS.—THE COMMON FOWL.

Officinal —Ovum, The egg.

Analysis†.—The shell consists of animal matter, carbonate and phosphate of lime. The white consists of albumen, soda, and sulphur. The yelk consists of albumen, a bland oil, colouring matter, and, according to Prout, phosphorus, in a state of combination, but with what it is combined he does not know‡.

Medicinal properties.—The white is given as an antidote to corrosive sublimate. The yelk is a nutritious food. The shell is antacid.

CLASS—PISCES.

ORDER.—*Chondropterygii*.

ACCIPENSER STURIO.—THE STURGEON.

Officinal.—Ichthyocolla, Isinglass.

Analysis§.—Gelatine; a very small quantity of phosphate of lime, and soda.

Medicinal properties.—Nutrient.

* Chevreul. † Duncan. ‡ Prout, in Philos. Trans. 1832. § Ure.

II.—NON-VERTEBRATED ANIMALS.

CLASS—MOLLUSCA.

ORDER.—*Acephala*.

OSTREA EDULIS.—THE COMMON OYSTER.

Officinal.—Testæ, Oyster shells.

*Analysis**.—Carbonate of lime; animal matter, supposed to be coagulated albumen.

Medicinal properties.—The oyster is a nutritious food, and the shell is antacid.

CLASS—INSECTA VEL ANIMALIA ARTICULATA.

ORDER.—*Coleoptera*.

CANTHARIS VESICATORIA.—THE SPANISH FLY.

Officinal.—Cantharides, blistering or Spanish flies.

Analysis†.—A green oil, insoluble in water, soluble in alcohol; a black matter, soluble in water, insoluble in alcohol; a yellow matter, soluble in both menstrua; a greasy matter, soluble neither in alcohol or water; uric acid; a peculiar crystalline substance, called *cantharidine*.

Medicinal properties.—Given internally, an arterial stimulant and diuretic; applied externally, an epispastic.

Cantharis, swallowed in large quantity, is an active poison. The symptoms usually caused by it are, a sense of burning in the throat and stomach; blood or membranous flakes are vomited; strangury, suppression of urine, or discharge of blood from the urethra, sometimes followed by headach, delirium, or convulsions.

Post mortem appearances.—The brain gorged with blood; throat, stomach, intestines, kidneys, ureters, and the internal organs of generation inflamed.

* Thomson.

† Robiquet.

ORDER.—*Hemiptera*.

COCCUS CACTI.—COCHINEAL.

Analysis *.—A peculiar animal matter, named *carmine* or cochenelline; stearine; elaine; an odorous oil; phosphate of lime; muriate of potassa; phosphate of potassa; potassa, combined with an acid.

Medicinal properties.—A colouring matter, used in pharmacy.

ORDER.—*Hymenoptera*.

APIS MELLIFICA.—THE BEE.

Officinal.—Mel, Honey; Cera, Wax.

Analysis †.—Honey consists of crystalline sugar, insoluble in alcohol; uncrystallisable sugar; mucilage; oxalic acid? Wax ‡ consists of cerine and myricine.

Medicinal properties.—Wax is demulcent and emollient. Honey is slightly laxative.

CLASS—ZOOPHYTA VEL ANIMALIA RADIATA.

ORDER.—*Spongia*.

SPONGIA OFFICINALIS.—SPONGE ANIMAL.

Officinal.—Spongia, Sponge.

Analysis §.—Animal matter; chloride of sodium; *iodine*, in combination with a metal or earth; phosphorus; lime; magnesia; silex; iron; beomine.

Medicinal properties.—Burnt sponge is a secretory stimulant.

* Pelletier and Caventou.

† Proust.

‡ John.

§ Lewis, Geoffroy, Neumann, Tromsdorff, Duncan, Jonas, &c.

MEDICINAL SUBSTANCES

DERIVED FROM THE VEGETABLE KINGDOM,

ARRANGED ACCORDING TO THE SYSTEM OF JUSSIEU.

ALGÆ.

FUCUS VESICULOSUS.—THE BLADDER WRACK.

LINN. Class *Cryptogamia*; Order *Algæ*.

Official.—Fucus, Bladder Wrack.

Analysis *.—Saccharine matter; albumen; green colouring matter; oxalate of potass; malate of potass; sulphate of potass; sulphate of soda; sulphate of magnesia; hydrochlorate of potass; hydrochlorate of soda; hydrochlorate of magnesia; hyposulphate of soda; carbonate of potass; carbonate of soda; *hydriodate* of potass; silica; subphosphate of lime; subphosphate of magnesia; oxide of iron, probably combined with phosphoric acid; oxalate of lime.

Medicinal properties.—Secretory stimulant.

IODINIUM, IODINA, or IODINE, being obtained from the ashes of sea-weed, I have inserted it in this place.

Medicinal properties.—Iodine and its compounds, iodides and hydriodates, belong to the class of secretory stimulants, diuretics, emmenagogues, and epispastics.

Iodine is a poison.

Symptoms.—Violent pain in the stomach, vomiting, bloody diarrhœa, coldness of the skin and rigor, with a quick pulse, may be the result of a single large dose. Small doses, frequently repeated, produce great emaciation and debility, sometimes accom-

* Gaultier de Claubry.

panied by fever, irritation of the alimentary canal, tremors, fainting, and palpitation of the heart.

Morbid appearances.—The coats of the stomach and intestines red, and the villous coat excoriated; effusion of serum into the cavity of the abdomen.

LICHENES.

LICHEN ISLANDICUS.—THE ICELAND MOSS.

LINN. Class *Cryptogamia* ; Order *Lichenes*.

Officinal.—Lichen, Iceland moss.

Analysis *.—Syrup; bitartrate of potassa; tartrate and phosphate of lime; a bitter principle; green wax; gum; colouring matter; lees of lichen and starch.

Medicinal properties.—Demulcent, expectorant, tonic.

FILICES.

ASPIDIUM FILIX MAS.—THE MALE FERN.

LINN. Class *Cryptogamia* ; Order *Filices*.

Officinal.—Filicis radix, Root of male fern.

Analysis †.—Brown resin; an aromatic fixed oil; an aromatic volatile oil; adipocere; a green colouring principle; brown matter; extractive; muriate of potassa; acetic acid.

Medicinal properties.—Anthelmintic.

AROIDEÆ.

ACORUS CALAMUS.—THE SWEET FLAG.

LINN. Class *Hexandria* ; Order *Monogynia*.

Officinal.—Calami radix, Sweet flag root.

Analysis ‡.—Extractive matter; gum; resin; a matter analogous to inuline; volatile oil, having the smell of camphor; woody fibre; water; salts.

Medicinal properties.—Tonic.

* Berzelius.

† Peschier.

‡ Tromsdorff.

PIPERACEÆ.

PIPER NIGRUM.—THE BLACK PEPPER.

PIPER LONGUM.—THE LONG PEPPER.

PIPER CUBEBA.—THE CUBEBA PLANT.

LINN. Class *Diandria* ; Order *Trigynia*.

Officinal.—*Piperis nigri baccæ*, Black pepper; *Piperis longi fructus*, Long pepper; *Cubeba*, Cubebs.

Analysis *.—Black pepper contains a peculiar principle named *piperine*; a very acrid concrete oil; a balsamic oil; a gummy colouring matter; extractive; gallic acid; tartaric acid; starch; bassorine; woody fibre; a small quantity of earthy salts and alkalies. Long pepper† contains crystalline resinous matter; an acrid, concrete, fatty substance; volatile oil; extractive; starch; a large portion of bassorine; neutral salts. Cubebs‡ contain concrete volatile oil; resin, similar to that found in *copaiba*; a coloured resin; gummy matter; a principle like that in some purgative leguminous plants; saline substances.

Medicinal properties.—Long and black pepper are stimulant, cubebs diuretic and purgative, and are much used in gonorrhœa and leucorrhœa.

GRAMINEÆ.

TRITICUM HYBERNUM.—WINTER WHEAT.

LINN. Class *Triandria* ; Order *Digynia*.

Officinal.—*Farina*, Wheat flour; *Amylum*, Starch.

Analysis §.—Wheat flour contains water; gluten; starch; saccharine matter; a gummy, glutinous matter.

Medicinal properties.—Wheat flour is a nutritious food; starch is demulcent.

HORDEUM DISTICHON.—THE BARLEY.

LINN. Class *Triandria* ; Order *Digynia*.

Officinal.—*Hordei semina*, Barley.

Analysis ||.—Yellow resin; a gummy, saccharine extract; gluten; starch; hordeine.

Medicinal properties.—Barley, in the form of decoction, is demulcent.

* Pelletier. † Dulong. ‡ Vauquelin. § Idem. || Proust.

By the process of brewing, ale and beer are obtained from barley: they are stimulants. *Cerevisiæ fermentum*, yeast, is the scum which collects on the surface of beer while fermenting. Yeast is tonic and antiseptic, and is prescribed as a gargle and external application.

AVENA SATIVA.—THE OAT.

LINN. Class *Triandria*; Order *Digynia*.

Officinal.—*Avenæ semina*, Oats.

Analysis *.—Albumen; gum; sugar; bitter principle; a fatty, yellowish, green oil, soluble in boiling alcohol; fibrous matter; sediment.

Davy discovered gluten in the oat; and, according to Vauquelin, burnt oats contain phosphate of lime and silica.

Medicinal properties.—Gruel, made with the meal of the oat, is demulcent, and a good, nutritious food.

SACCHARUM OFFICINALE.—THE SUGAR-CANE.

LINN. Class *Triandria*; Order *Digynia*.

Officinal.—*Saccharum*, Sugar, and *Saccharum purificatum*, Refined Sugar.

Analysis †.—Extractive; uncrystallizable sugar; crystallizable sugar; an aroma like that of rum; gum; malic acid; gypsum; a green sediment.

Medicinal properties.—Laxative. Antidote to verdigris.

SECALE CEREALE.—THE RYE.

LINN. Class *Triandria*; Order *Digynia*.

Officinal.—*Secale Cornutum*, Ergot of Rye.

Analysis ‡.—Gluten; ammonia, or a peculiar alkali; acetic acid; a violet colouring matter; resin; fatty oil; an alkali in combination with acetic acid.

Medicinal properties.—Nervous stimulant, exercising a peculiar power over the uterus.

Ergot of rye is a poison; a single dose of which may excite headach, giddiness, flushed face, pain and spasms in the stomach, nausea, vomiting, purging, and a sense of weight and weariness in the limbs.

When, however, ergot has been mixed with bread, and used for a considerable period, the disease called "ergotism" is the result.

* Vogel.

† Proust.

‡ Maas.

Of this disorder there are two species:—1st. Convulsive ergotism, of which the symptoms are, dimness of sight, and giddiness, followed by cramps, convulsions, risus sardonius, excessive thirst, pains in the chest and limbs, a weak pulse, and a sensation like that caused by insects crawling over the face and limbs. The disorder either terminates in recovery, when eruptions, suppurations, or anasarca come on; or the patient dies amidst convulsions, or in a comatose state.

2nd. Gangrenous ergotism commences with general debility, weariness, and the sensation as of insects creeping over the body. After some days the extremities become cold, stiff, benumbed, and insensible; pains in the limbs, bleeding from the nose, fever, and headach, follow; finally, the limbs affected shrivel and drop off. A healthy granulation sometimes succeeds, but the patient usually dies from exhaustion before this stage of the disease*.

ORYZA SATIVA.—THE RICE PLANT.

LINN. Class *Triandria*; Order *Digynia*.

Officinal.—Oryza, Rice.

Analysis†.—Sugar; albumen; fatty oil; sediment.

Medicinal properties.—Nutritious food.

COLCHICEÆ.

COLCHICUM AUTUMNALE.—THE MEADOW SAFFRON.

LINN. Class *Hexandria*; Order *Trigynia*.

Officinal.—Colchici radix et semina, the root and seeds of Colchicum.

Analysis‡.—A fatty matter, composed of elaine, stearine, and an acid; gallic acid, in combination with *veratria*; yellow colouring matter; gum; starch; inuline; woody fibre.

Medicinal properties.—Diuretic, cathartic, diaphoretic, sedative. An acrid narcotic poison.

VERATRUM ALBUM.—WHITE HELLEBORE.

LINN. Class *Polygamia*; Order *Monœcia*.

Officinal.—Veratri radix, White Hellebore root.

Analysis§.—Fatty matter composed of elaine, stearine, and

* See Christison. † Vogel. ‡ Pelletier and Caventou. § Idem.

an acid; gallate of veratria; yellow colouring matter; starch; woody fibre; gum.

When burnt, salts having lime, potash, and silica, for their bases are found in the ashes.

Medicinal properties.—Errhine, cathartic, sedative.

Colchicum and Veratrum are acrid narcotic poisons, and as their deleterious properties depend upon *veratria*, which is contained in both plants, similar effects are produced by large doses of either of them. The *symptoms* are, burning in the throat and stomach, followed by nausea, dysuria, weakness of the limbs, giddiness, dilated pupil, faintness, convulsive respiration, vomiting, purging, and delirium.

Morbid appearances.—Redness of the stomach and small intestines. In some cases there is cerebral congestion.

ASPARAGINEÆ.

SMILAX SARSAPARILLA.—THE SARSAPARILLA PLANT.

LINN. Class *Diœcia*; Order *Hexandria*.

Officinal.—Sarsaparillæ radix, Sarsaparilla root.

*Analysis**.—Balsamic resin; acrid extractive; extractive resembling cinchonine; albumen; starch; woody fibre; moisture.

A peculiar substance, called *Paragline*, is said to have been discovered by Pallotta, and another peculiar substance, termed *Smilacine*, is reported to have been found by Folchi.

Medicinal properties.—Nutrient, diuretic, and diaphoretic.

LILIACEÆ.

ALLIUM PORRUM.—THE LEEK.

ALLIUM SATIVUM.—THE GARLIC.

LINN. Class *Hexandria*; Order *Monogynia*.

Officinal.—Porri radix, Leek root or bulb; Allii radix, Garlic root or bulb.

Analysis†.—A white, acrid, volatile, and odoriferous oil combined with sulphur; crystallizable sugar; mucilage similar to gum Arabic; a vegeto-animal matter coagulable by heat, and ana-

* Pfaff.

† Fourcroy and Vauquelin.

logous to gluten; phosphoric acid; phosphate of lime; a combination of citric acid and an earth; fibrous matter.

Medicinal properties.—Antispasmodic, nervous stimulant, expectorant.

SCILLA MARITIMA.—THE SQUILL.

LINN. Class *Hexandria*; Order *Monogynia*.

Officinal.—*Scillæ radix*, Squill root.

Analysis *.—A very volatile pungent principle; gum; uncrySTALLIZABLE sugar; fatty matter; an excessively bitter and acrid substance, called *Scillitine*, in which the properties of the plant reside.

Medicinal properties.—Diuretic and expectorant.

Squill is a poison, causing sickness, vomiting, diarrhœa, bloody urine, and sometimes comatose symptoms.

Post mortem appearances.—Stomach inflamed, or partially eroded.

ALOE SPICATA.—THE SPIKED OR SOCOTRINE ALOE.

ALOE VULGARIS.—THE COMMON OR HEPATIC ALOE.

LINN. Class *Hexandria*; Order *Monogynia*.

Officinal.—*Aloës spicatæ extractum*, Extract of aloes.

Analysis †.—Bitter extractive; resin; coagulated albumen; traces of gallic acid. On the former of these the smell, taste, and medicinal power of aloes depend.

Medicinal properties.—Cathartic; emmenagogue.

IRIDEÆ.

CROCUS SATIVUS.—THE SAFFRON CROCUS.

LINN. Class *Triandria*; Order *Monogynia*.

Officinal.—*Croci stigmata*, the stigmas of the saffron.

Analysis ‡.—Gum; albumen; wax; volatile oil; a colouring matter called *polychroite*.

Medicinal properties.—Slightly stimulant.

* Tilloy. † Tromsdorff. ‡ Bouillon, Le Grange, and Vogel.

AMOMEÆ.

MATONIA CARDAMOMUM.—THE CARDAMOM.

LINN. Class *Monandria* ; Order *Monogynia*.

Officinal.—Cardamomi semina, Cardamom seeds.

Analysis *.—Volatile oil ; resinous extract ; watery extract.

Medicinal properties.—Arterial stimulant.

ZINGIBER OFFICINALE.—THE GINGER PLANT.

LINN. Class *Monandria* ; Order *Monogynia*.

Officinal.—Zingiberis radix, Ginger root.

Analysis †.—Resinous matter ; a sub-resin ; a bluish-green volatile oil ; acetic acid ; acetate of potassa ; osmazome ; gum ; vegeto-animal matter ; sulphur ; starch ; woody fibre.

Medicinal properties.—Arterial stimulant.

ARISTOLOCHIÆ.

ARISTOLOCHIA SERPENTARIA.—THE VIRGINIAN SNAKE
Root.

LINN. Class *Gynandria* ; Order *Hexandria*.

Officinal.—Serpentariæ radix, Serpentry root.

Analysis ‡.—Volatile oil ; yellowish gummy matter ; saponaceous extractive matter ; gummy extract ; woody fibre ; water.

Medicinal properties.—Stimulant.

ASARUM EUROPÆUM.—THE ASARABACCA.

LINN. Class *Dodecandria* ; Order *Monogynia*.

Officinal.—Asari folia, Asarabacca leaves.

Analysis §.—Concrete volatile oil, analogous to camphor ; a fatty liquid oil, which is very acid ; a yellow matter, soluble in water, similar to cytisine, very nauseous, and exciting vomiting ; ulmine ; earthy salts ; silica ; iron ; sediment.

Medicinal properties.—Errhine ; stimulant.

* Neumann.

† Morin.

‡ Bucholz.

§ Lassaigne and Feneulle.

THYMALEÆ.

DAPHNE MEZEREUM.—THE MEZEREON TREE.

LINN. Class *Octandria* ; Order *Monogynia*.

Officinal.—Mezerei cortex, The bark of mezereon root.

*Analysis**.—*Daphneine* ; resin ; wax ; red colouring matter ; uncrystallizable sugar ; malic acid ; malates ; gum ; lignine ; brown colouring matter.

Medicinal properties.—Stimulant ; sialagogue.

Mezereon is a poison, causing diarrhœa, vomiting, and sometimes hæmoptysis, as stated by Linnæus.

POLYGONEÆ.

POLYGONUM BISTORTA.—THE BISTORT.

LINN. Class *Octandria* ; Order *Trigynia*.

Officinal.—Bistortæ radix, Bistort root.

Analysis†.—Tannin ; gallic acid ; oxalic acid ; sediment.

Medicinal properties.—Astringent.

RUMEX ACETOSA.—THE COMMON SORREL.

LINN. Class *Hexandria* ; Order *Trigynia*.

Officinal.—Acetosæ folia, Common sorrel leaves.

Analysis‡.—Superoxalate of potassa ; tartaric acid ; mucilage ; sediment.

Medicinal properties.—Refrigerant.

RHEUM PALMATUM.—THE RHUBARB PLANT.

LINN. Class *Enneandria* ; Order *Trigynia*.

Officinal.—Rhei radix, Rhubarb root.

Analysis§.—Resin ; *extractive* ; gum ; starch ; malate of lime ; phosphate of lime ; oxalate of lime ; lignine ; water.

Some chemists are of opinion that the extractive is a peculiar principle, which Pfaff has named *rhobarbarine*. Mr. Henderson mentions a peculiar acid, which he names *rheumic acid*.

Medicinal properties.—Cathartic ; when roasted, tonic and astringent.

* Gmelin.

† Scheele.

‡ Merat and De Leus.

§ Brande.

LAURINEÆ.

LAURUS NOBILIS.—THE BAY TREE.

LINN. Class *Enneandria* ; Order *Monogynia*.

Officinal.—Lauri baccæ et folia, Bay berries and leaves.

Analysis *.—Volatile oil ; a crystalline substance, called *laurina* ; fatty oil ; stearine and wax ; resin ; bassorine ; gummy extract ; sugar ; acid, whose nature is not determined ; albumen ; spongy matter ; sediment.

Medicinal properties.—The oil or infusion of the berries is, when applied externally, stimulant ; internally, narcotic, but is never used.

LAURUS CINNAMOMUM.—THE CINNAMON TREE.

LINN. Class *Enneandria* ; Order *Monogynia*.

Officinal.—Cinnamomi oleum et cortex, Cinnamon oil and bark.

Analysis †.—Volatile oil ; tannin, combined with vegeto-animal matter, soluble in water by means of an acid ; mucilage ; yellow colouring matter ; resin ; sugar ; and, according to Planche, starch.

Medicinal properties.—Stimulant and astringent.

LAURUS CAMPHORA.—THE CAMPHOR LAUREL.

LINN. Class *Enneandria* ; Order *Monogynia*.

Officinal.—Camphora, Camphor.

Analysis ‡.—Charcoal ; volatile oil, called oil of camphor.

Medicinal properties.—Sedative ; narcotic.

Camphor, in large doses, is a poison, causing giddiness, loss of memory, followed by insensibility, convulsions, delirium, or frenzy.

Post mortem appearances §.—The alimentary canal inflamed ; the brain injected with blood ; the membrane lining the stomach red, or covered with gangrenous spots ; the ureters, urethra, and spermatic cord inflamed.

LAURUS SASSAFRAS.—THE SASSAFRAS LAUREL.

LINN. Class *Enneandria* ; Order *Monogynia*.

Officinal.—Sassafras lignum et radix, The wood and root of sassafras.

* Bonastre.

† Vauquelin.

‡ Bouillon, Le Grange.

§ See Christison and Orfila.

Analysis *.—Woody fibre, &c.; essential oil, of a pale-yellow colour, acrid taste, and strong smell.

Medicinal properties.—Diaphoretic.

EUPHORBIACEÆ.

EUPHORBIA OFFICINARUM.—EUPHORBIA TREE.

LINN. Class *Monœcia* ; Order *Monandria*.

Officinal.—Euphorbiæ gummi resina, Euphorbium.

Analysis †.—Resin ; wax ; malate of lime ; malate of potassa ; bassorine ; woody fibre ; water ; and, according to Buchner and Herberger, a resin called euphorbïin.

Medicinal properties.—Escharotic ; errhine ; emetic ; cathartic.

Euphorbium is an acrid vegetable poison.

The *symptoms* usually caused by it are heat in the throat, violent vomiting, griping, and purging, followed by exhaustion.

Post mortem appearances.—Inflammation of the intestines, and gangrenous spots in the stomach ; the mucous coat of the whole alimentary canal is red, or nearly black.

CROTON CASCARILLA.—THE CASCARILLA.

LINN. Class *Monœcia* ; Order *Monadelphïa*.

Officinal.—Cascarillæ cortex, Cascarilla bark.

Analysis ‡.—Resin ; mucilage ; bitter principle ; essential oil ; water ; vegetable fibre.

Medicinal properties.—Tonic.

CROTON TIGLIUM.—PURGING CROTON.

LINN. Class *Monœcia* ; Order *Monadelphïa*.

Officinal.—Oleum Tiglii, Oil of Croton seeds.

Analysis §.—Volatile oil ; a peculiar acid, called *crotonic acid* ; an alkaline substance ; colouring matter ; stearine ; wax ; resinous matter ; inuline ; gum ; gluten ; adragantine ; albumen ; starch ; earthy salts.

Pelletier and Caventou found a fixed oil, and Nimmo discovered an *acrid* resinous principle, which he calls *tigline*.

* Bonastre.

† Pelletier.

‡ Tromsdorff.

§ Brandes.

Medicinal properties.—A very powerful cathartic, which in over doses causes the usual symptoms of acrid vegetable poisoning.

RICINUS COMMUNIS.—COMMON RICINUS.

LINN. Class *Monæcia* ; Order *Monadelphica*.

Officinal.—Ricini semina et oleum, Castor oil and seeds.

Analysis *.—A *peculiar solid matter* ; a volatile oil without colour, crystallisable by cold ; *three new acids, acrid and soluble in alcohol, called oleo-ricinic, ricinic, and stearo-ricinic.*

Medicinal properties.—Cathartic.

The seeds of the ricinus are poisonous, causing vomiting, hiccup, pain in the stomach, purging, and faintness. These effects are produced by the acidity of the cotyledons. After death the stomach and intestines present marks of inflammation †.

CUCURBITACEÆ.

CUCUMIS COLOCYNTHIS.—THE BITTER APPLE.

LINN. Class *Monæcia* ; Order *Monadelphica*.

Officinal.—Colocynthis pulpa, Pulp of the bitter apple.

Analysis ‡.—Resinous matter soluble in ether ; fatty oil ; extractive ; gum ; *colocynthisine* ; salts.

Medicinal properties.—Cathartic.

In an over dose colocynth is an acrid vegetable poison, causing the usual symptoms §.

MOMORDICA ELATERIUM.—THE WILD CUCUMBER.

LINN. Class *Monæcia* ; Order *Monadelphica*.

Officinal.—Elaterii pepones, Fruit of the wild cucumber.

Analysis ||.—Water ; extractive ; starch ; gluten ; woody fibre ; a peculiar bitter principle, named *elatine*.

According to Paris, elatine is not a *bitter* principle.

Medicinal properties.—Hydragogue cathartic.

Both elaterium and elatine belong to the class of acrid vegetable poisons. They are more powerful than colocynth, but in other respects their operation is similar.

* Bussy and Lecanu.

† See Orfila.

‡ Vauquelin.

§ See Euphorbium.

|| Pallas.

MYRISTACEÆ.

MYRISTICA MOSCHATA.—THE NUTMEG TREE.

LINN. Class *Diæcia* ; Order *Monadelphica*.

Officinal.—Myristicæ nuclei, Nutmegs.

Analysis *.—Stearine ; elaine ; volatile oil ; gum ; acid ; woody fibre ; sediment.

Medicinal properties.—Stimulant.

The oil in large doses is narcotic, causing stupor and insensibility.

ULMACEÆ.

ULMUS CAMPESTRIS.—COMMON ELM.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Ulmi cortex, Elm bark.

Analysis.—Carbonate of lime ; acetate of potassa ; mucilage ; *ulmine*.

Medicinal properties.—Diaphoretic, diuretic.

URTICEÆ.

DORSTENIA CONTRAJERVA.—CONTRAJERVA.

LINN. Class *Tetrandria* ; Order *Monogynia*.

Officinal.—Contrajervæ radix, Contrajerva root.

Analysis.—Neumann obtained a watery and an alcoholic extract, but a more complete analysis is yet wanting.

Medicinal properties.—Diaphoretic.

FICUS CARICA.—THE FIG TREE.

LINN. Class *Polygamia* ; Order *Triæcia*.

Officinal.—Caricæ fructus, Figs.

Analysis †.—Sugar ; mucilage.

Medicinal properties.—Expectorant, demulcent.

* Bonastre.

† Fée.

MORUS NIGRA.—THE MULBERRY.

LINN. Class *Monœcia* ; Order *Tetrandria*.*Officinal*.—Mori baccæ, Mulberries.*Analysis**.—Mucilage ; sugar ; tartaric acid.*Medicinal properties*.—Slightly refrigerant, but never prescribed.

HUMULUS LUPULUS.—THE HOP.

LINN. Class *Diœcia* ; Order *Pentandria*.*Officinal*.—Humuli strobili, Strobiles, or flowers of the hop.*Analysis*†.—Resin ; bitter matter ; *lupuline* ; essential oil ; silica ; gum ; malic acid ; salts, having potassa and lime for bases ; oxide of iron ; sulphur ; osmazome.*Medicinal properties*.—Narcotic ; sedative ; tonic.

Lupuline is a narcotic poison, producing vertigo and stupor ; but post mortem examinations have hitherto presented nothing worthy of note. The experiments have been made upon dogs.

CUPULIFERÆ.

QUERCUS PEDUNCULATA.—COMMON WHITE OAK.

LINN. Class *Monœcia* ; Order *Polyandria*.*Officinal*.—Quercûs cortex, Oak bark.*Analysis*‡.—Gallic acid ; tannin.*Medicinal properties*.—Astringent.

QUERCUS INFECTORIA.—DYER'S BARK.

LINN. Class *Monœcia* ; Order *Polyandria*.*Officinal*.—Gallæ, Galls.*Analysis*§.—Tannin ; gallic acid, combined with mucilage ; extractive and matter, rendered insoluble by evaporation ; carbonate of lime ; salts ; according to Braconnot, ellagic acid.*Medicinal properties*.—Astringent ; an antidote to antimony, tartarizatum.

* Fée.

† Payen and Chevalier.

‡ Fée.

§ Davy.

SALICINEÆ.

SALIX CAPREA.—THE WILLOW.

LINN. Class *Diæcia* ; Order *Diandria*.

Officinal.—Salicis cortex, Willow bark.

Analysis.—The salix caprea has not been analyzed, but the salix alba, which to all appearance resembles it, yields* tannin; bitter resin; extractive; gluten; *salicine*.

Medicinal properties.—Tonic.

CONIFERÆ.

PINUS ABIES.—THE SPRUCE FIR.

LINN. Class *Monæcia* ; Order *Monadelphica*.

Officinal.—Abietis resina, Resin of the spruce fir. Pix abietina, Burgundy pitch.

PINUS SYLVESTRIS.—THE SCOTCH FIR.

Officinal.—Terebinthina vulgaris, Common Turpentine. Terebinthinæ oleum, Oil of turpentine. Resina flava, Yellow resin. Pix nigra, Pitch. Pix liquida, Tar.

PINUS BALSAMEA.—HEMLOCK FIR.

Officinal.—Terebinthina Canadensis, Canada balsam.

Analysis†.—Turpentine contains volatile oil; succinic acid; resin. Tar contains empyreumatic oil; resin; acetic acid.

Medicinal properties.—Turpentine is stimulant, cathartic, diuretic, anthelmintic, and epispastic. Tar is stimulant, expectorant, and diuretic.

JUNIPERUS COMMUNIS.—THE COMMON JUNIPER.

LINN. Class *Diæcia* ; Order *Monadelphica*.

Officinal.—Juniperi baccae et cacumina, Juniper berries and tops.

Analysis‡.—Sugar; mucilage; essential oil.

Medicinal properties.—Diuretic.

* Thomson.

† Idem.

‡ Fée.

JUNIPERUS SABINA.—THE SAVINE.

Officinal.—Sabinæ folia, Savine leaves.

*Analysis**.—Essential oil; resin.

Medicinal properties.—Stimulant; emmenagogue; epispastic.

It is an acrid, vegetable poison, causing the same symptoms and post mortem appearances as euphorbia; and miscarriage is also said to have been produced by it.

JUNIPERUS LYCIA,

Supposed to produce Olibanum, which will be noticed when I speak of the Boswellia serrata.

SCROFULARIÆ.

DIGITALIS PURPUREA.—THE PURPLE FOXGLOVE.

LINN. Class *Didynamia*; Order *Angiospermia*.

Officinal.—Digitalis folia, Foxglove leaves.

Analysis†.—Extractive; green oil; *digitaline*; salts.

Medicinal properties.—Sedative and diuretic.

Digitalis is a narcotico-acrid poison. When this medicine has been taken for several days, even in moderate doses, it frequently excites nausea, vomiting, giddiness, want of sleep, sense of heat throughout the body, and all external objects assume a green appearance; general depression, sometimes salivation, diarrhœa, or convulsions. The pulse is always feeble, and frequently intermits. When a single large dose of digitalis has been given, vomiting, purging, depression of the pulse, dilatation of the pupils, faintness, cold sweats, swelling of the face, and convulsions or coma are usually the consequence.

Post mortem appearances.—The membranes of the brain injected with blood; the mucous coat of the stomach of a red colour.

LABIATÆ.

ROSMARINUS OFFICINALIS.—OFFICINAL ROSEMARY.

LINN. Class *Diandria*; Order *Monogynia*.

Officinal.—Rosmarini cacumina, Rosemary tops.

* Hoffman.

† Le Royer.

CONVOLVULACEÆ.

CONVOLVULUS JALAPA.—THE JALAP PLANT.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Jalapæ radix, Jalap root.

*Analysis**.—Water ; resin ; gummy extract ; sediment ; albumen ; woody fibre ; phosphate of lime ; carbonate of iron ; silica ; salts ; and, according to Hume, *jalapine*.

Medicinal properties.—Drastic cathartic, and anthelmintic.

CONVOLVULUS SCAMMONEA.—THE SCAMMONY PLANT.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Scammoneæ gummi-resina, Scammony.

Analysis†.—Resin ; gum ; extractive ; vegetable matter ; earthy matter.

Medicinal properties.—Drastic cathartic, and anthelmintic.

SOLANEÆ.

SOLANUM DULCAMARA.—THE BITTER-SWEET.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Dulcamaræ caules, the Stalks of Bitter-sweet.

Analysis.—Defosses discovered a *peculiar principle*, named *solanine*, combined with malic acid. Citric acid was obtained from it by Scheele ; and Pfaff mentions a volatile narcotic principle, and a peculiar bitter principle, having the smell of honey, and leaving a sweet taste in the mouth, called *picro-glycion*.

Medicinal properties.—Narcotic, diaphoretic, diuretic.

ATROPA BELLADONNA.—THE DEADLY NIGHTSHADE.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Belladonnæ folia, Deadly Nightshade leaves.

Analysis‡.—Gum ; starch ; greenish resin ; woody fibre ; a *peculiar principle* named *atropine*, or *atropia*, combined with malic acid.

Medicinal properties.—Narcotic.

Belladonna is a narcotico-acrid poison, the effects of which are

* Cadet.

† Bouillon, Le Grange, and Vogel.

‡ Brandes.

dryness in the throat, delirium, dilated pupil, and afterwards coma. Convulsions sometimes, though very rarely, occur.

Post mortem appearances.—The body is swollen, and covered with livid spots; a few hours after death putrefaction commences. The vessels of the head are gorged with fluid blood, which usually flows from the nose, mouth, and ears. Sometimes the internal surface of the stomach is ulcerated, the lungs are livid and filled with venous blood, and marked with black spots.

HYOSCYAMUS NIGER.—THE BLACK HENBANE.

LINN. Class *Pentandria*; Order *Monogynia*.

Officinal.—Hyoscyami semina et folia, The seeds and leaves of henbane.

Analysis *.—A peculiar alkaline extract called *hyoscyama*; gallic acid; resin; mucilage; salts.

Medicinal properties.—Narcotic, antispasmodic.

Hyoscyamus is a narcotic poison.

Symptoms.—Loss of speech, dilatation of the pupils, coma, and delirium.

Post mortem appearances.—The brain congested with blood. The internal coat of the stomach inflamed, and sometimes covered with gangrenous spots.

NICOTIANA TABACUM.—THE TOBACCO PLANT.

LINN. Class *Pentandria*; Order *Monogynia*.

Officinal.—Tabaci folia, Tobacco leaves.

Analysis †.—Resin; albumen; red animalized matter, soluble in water and in alcohol; a peculiar acrid principle; a volatile principle in which the properties of the plant reside, called *nicotia*; woody fibre; acetic acid; salts.

Medicinal properties.—Narcotic, sedative, cathartic, errhine, sialagogue.

Tobacco is a narcotico-acrid poison.

Symptoms.—Nausea, faintness, vomiting, stupor, stertorous breathing, spasms, dilatation of the pupils.

Post mortem appearances ‡.—The omentum red. The coats of the intestines red and gorged with blood, with patches of extravasation on the mucous coat. Vessels of the abdomen unusually empty. Stomach and brain natural, lungs pale, and the cavities of the heart empty.

* Brandes.

† Vauquelin.

‡ See Christison.

DATURA STRAMONIUM.—THE THORN APPLE.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Stramonii folia et semina, The leaves and seeds of thorn-apple.

Analysis *.—The leaves contain gum ; extractive matter ; sediment ; albumen ; resin ; salts.

Brandes has discovered in the seeds a peculiar principle which he calls *daturine*.

Medicinal properties.—Narcotic.

The effects of a poisonous dose of stramonium are, delirium, dilatation of the pupil, and stupor, sometimes accompanied or followed by paralysis.

Post mortem appearances.—Congestion of the brain and sinuses. In animals, the stomach is inflamed, and the lungs loaded with black fluid blood.

CAPSICUM ANNUUM.—THE CAPSICUM PLANT.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Capsici baccae, Capsicum berries, or, Cayenne pepper.

Analysis †.—Cinchonine ; resin ; mucilage ; an *alkaline principle* called *capsicine*.

Medicinal properties.—Stimulant.

JASMINEÆ.

OLEA EUROPÆA.—THE OLIVE TREE.

LINN. Class *Diandria* ; Order *Monogynia*.

Officinal.—Oleum olivæ, Olive oil.

Analysis ‡.—Stearine ; elaine.

Medicinal Properties.—Cathartic, emollient, demulcent, anthelmintic.

FRAXINUS ORNUS.—THE FLOWERING ASH.

LINN. Class *Diandria* ; Order *Monogynia*.

Officinal.—Manna, The concrete juice of the flowering ash.

Analysis §.—*Mannite* ; sugar ; a nauseous yellow matter, which is purgative ; mucilage.

Medicinal properties.—Laxative.

* Promnitz.

† Forchhammer.

‡ Merat and De Lens.

§ Fourcroy and Vauquelin.

GENTIANÆ.

GENTIANA LUTEA.—THE YELLOW GENTIAN.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—*Gentianæ radix*, Yellow gentian root.

*Analysis**.—A volatile colouring principle; a bitter yellow crystalline substance, called *gentianine*; glutinous matter; green fixed oil; acid; uncrystallisable sugar; gum; yellow colouring matter; woody fibre.

Medicinal properties.—Tonic.

CHIRONIA CENTAURIUM, OR ERYTHRŒA CENTAURIUM.—THE COMMON CENTAURY.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—*Centaurii cacumina*, The tops or flowering heads of centaury.

Analysis†.—An acid; a slimy matter; bitter extract.

Duncan also thinks it contains gentianine, but this substance has not been found in centaury.

Medicinal properties.—Tonic.

MENYANTHES TRIFOLIATA.—THE BUCKBEAN, OR MARSH TREFOIL.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—*Menyanthes*, The leaves of buckbean.

Analysis‡.—Feculent matter, composed of albumen; green resin; bitter azotized extractive matter; brown gum; white sediment of a peculiar nature; malic acid; woody fibre; salts.

Medicinal properties.—Tonic.

SPIGELIA MARILANDICA.—THE CAROLINA PINK, OR WORM GRASS.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—*Spigeliæ radix*; Worm grass root.

Analysis§.—Fatty oil; volatile oil; resin; a bitter substance, supposed to be the active part of the plant; mucus; albumen;

* Henry and Caventou.

† Fée.

‡ Tromsdorff.

§ Feneuille.

gallic acid ; woody fibre ; malate of potassa and lime ; silica ; oxide of iron.

Medicinal properties.—Anthelmintic.

APOCINEÆ.

STRYCHNOS NUX VOMICA.—THE POISON NUT TREE.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Nux vomica, The seeds or poison nut.

Analysis *.—Malate of lime ; gum ; fixed oil ; yellow colouring matter ; salts ; *strychnine*, *brucine*, *igasuric acid*.

Medicinal properties.—Nervous stimulant.

Nux vomica and strychnine are poisons, which excite violent tetanic spasms and convulsions, and the patient frequently dies from difficulty of breathing, caused by spasms of the diaphragm and muscles of the chest.

Post mortem appearances are various. The vessels of the brain are distended with blood, the heart is flaccid, the intestines and stomach inflamed, and sometimes livid and gangrenous. Effusion has been observed on the surface of the cerebellum, and the cortical substance of the brain softened. The spinal cord softened and the lungs gorged with blood.

DYOSPYREÆ.

STYRAX OFFICINALE.—THE STYRAX TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Styracis balsamum, Storax balsam.

Analysis †.—Resin ; benzoic acid ; empyreumatic oil.

Medicinal properties.—Stimulant, expectorant.

STYRAX BENZOIN.—THE BENZOIN OR BENJAMIN TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Benzoinum, Benzoin.

Analysis ‡.—*Benzoic acid* ; resin ; matter similar to balsam or

* Pelletier and Majendie.

† Fée.

‡ Bucholz.

Peru ; a *peculiar aromatic principle*, soluble in water and alcohol ; woody sediment.

Medicinal properties.—Stimulating expectorant. Benzoic acid possesses the same properties, but it is seldom prescribed.

ERICINEÆ.

ARBUTUS UVA URSI.—THE BEAR BERRY TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Uvæ ursi folia, The leaves of the bear berry.

Analysis *.—Tannin ; mucus ; bitter extractive ; gallic acid ; resin ; oxygenated extractive ; woody fibre ; lime.

Medicinal properties.—Astringent.

PYROLA UMBELLATA.—THE WINTER GREEN.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Herba, The whole herb.

Analysis †.—Bitter extractive ; tannin ; fibre ; earthy salts.

Medicinal properties.—Diuretic.

CORYMBIFERÆ.

ANTHEMIS NOBILIS.—THE CHAMOMILE PLANT.

LINN. Class *Syngenesia* ; Order *Polygamia superflua*.

Officinal.—Anthemidis flores, Chamomile flowers.

Analysis ‡.—Volatile oil ; a gummi-resinous principle ; tannin.

Medicinal properties.—Emetic ; stomachic ; tonic ; antispasmodic.

ANTHEMIS PYRETHRUM.—THE PELLITORY.

LINN. Class *Syngenesia* ; Order *Polygamia superflua*.

Officinal.—Pyrethri radix, Pellitory root.

Analysis §.—Volatile oil ; fixed oil ; yellow colouring matter ; gum ; inuline ; muriate of lime ; woody fibre.

Medicinal properties.—Stimulant, sialagogue.

* Melandri and Moretti.

† Wolf.

‡ Fée.

§ Gauthier.

ARTEMISIA ABSINTHIUM.—WORMWOOD.

LINN. Class *Syngenesia*; Order *Polygamia superflua*.

Officinal.—Absinthium, Leaves and flowering tops of wormwood.

Analysis *.—A very bitter azotized matter; an insipid azotized matter; a bitter matter, having the appearance of resin; green volatile oil; chlorophylle; albumen; sediment; salts of potassa; woody fibre; water.

Medicinal properties.—Tonic, anthelmintic.

INULA HELENIUM.—ELECAMPANE.

LINN. Class *Syngenesia*; Order *Polygamia superflua*.

Officinal.—Helenii radix, Elecampane root.

Analysis †.—Bitter extractive matter; acetic acid; crystallizable resin; albumen; a white matter somewhat resembling volatile oil and camphor; fibrous matter; inuline, discovered by Rose.

Medicinal properties.—Stimulant.

TUSSILAGO FARFARA.—COLTSFOOT.

LINN. Class *Syngenesia*; Order *Polygamia superflua*.

Officinal.—Tussilago, Coltsfoot leaves and flowers.

Analysis ‡.—Tannin; extractive.

Medicinal properties.—Tonic, demulcent.

CICHORACEÆ.

LACTUCA SATIVA.—THE LETTUCE.

LINN. Class *Syngenesia*; Order *Polygamia æqualis*.

Officinal.—Lactuca, Leaves and expressed juice of the garden lettuce.

Analysis §.—Wax; resin; caoutchouc; an acid analogous to oxalic acid; a narcotic principle like that of hyoscyamus, named lactucanine.

Medicinal properties.—Sedative and narcotic.

The poisonous effects of lactucanine are similar to those of opium.

* Braconnot.

† Funke.

‡ Merat and De Lens.

§ Klink and Pfaff.

{ LEONTODON TARAXACUM.—THE DANDELION.

LINN. Class *Syngenesia*; Order *Polygamia æqualis*.

Officinal.—*Taraxaci radix*, Root of dandelion.

Analysis.—Caoutchouc was detected by John, and Thomson thinks the root probably contains extractive; gluten; a bitter principle; and tartaric acid.

Medicinal properties.—Diuretic, laxative.

VALERIANEÆ

VALERIANA OFFICINALIS.—THE WILD VALERIAN.

LINN. Class *Triandria*; Order *Monogynia*.

Officinal.—*Valerianæ radix*, Wild Valerian root.

Analysis *.—A peculiar principle, soluble in water, but insoluble in alcohol or ether; resin; volatile oil; gummy matter; woody fibre; sediment.

Medicinal properties.—Antispasmodic, tonic, emmenagogue.

RUBIACEÆ.

RUBIA TINCTORUM.—DYERS Madder.

LINN. Class *Tetrandria*; Order *Monogynia*.

Officinal.—*Rubiæ radix*, Madder root.

Analysis †.—A red colouring matter called (by Robiquet) *alizarine*; a yellow colouring matter termed *xanthine*; woody fibre; vegetable acid; mucilage; vegeto-animal matter; gum; sugar; a bitter substance; resin; salts.

Medicinal properties.—Emmenagogue.

CHIOCOCCA RACEMOSA.

LINN. Class *Pentandria*; Order *Monogynia*.

Officinal.—*Chiococcæ radix*, Chiococca root.

Analysis ‡.—A peculiar alkaline principle nearly allied to emetine, together with vegetable matter.

Medicinal properties.—Diuretic, emetic, cathartic.

* Tromsdorff.

† Kuhlman.

‡ Brandes.

CINCHONA CORDIFOLIA.—YELLOW OR HEART-LEAVED BARK.

LANCIFOLIA.—LANCE-LEAVED OR PALE BARK.

OBLONGIFOLIA.—OBLONG-LEAVED OR RED BARK.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Cinchonæ Cordifoliæ cortex, Heart-leaved or yellow cinchona bark ; Cinchonæ lancifoliæ cortex, Lance-leaved or pale cinchona bark ; Cinchonæ oblongifoliæ cortex, Oblong-leaved or red cinchona bark.

Analysis *.—Yellow bark contains *kinate of quinine* ; yellow fatty matter ; red colouring matter ; tannin ; yellow colouring matter ; kinate of lime ; starch and woody fibre. Pale bark contains *kinate of cinchonine* ; green fatty matter ; red colouring matter ; tannin ; yellow colouring matter ; kinate of lime ; gum ; starch and woody fibre. Red bark contains *kinate of cinchonine* ; *kinate of quinine* ; red fatty matter ; red colouring matter ; tannin ; kinate of lime ; yellow colouring matter ; starch ; woody fibre.

Medicinal properties.—Tonic.

CEPHAELIS VEL CALLICOCCA IPECACUANHA.—
IPECACUANHA.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Ipecacuanhæ radix, Ipecacuan root.

Analysis †.—*Emetine* ; fatty matter ; vegetable wax ; gum ; starch ; woody fibre ; gallic acid.

Medicinal properties.—Emetic ; diaphoretic ; expectorant antispasmodic.

CAPRIFOLIACEÆ.

SAMBUCUS NIGRA.—THE ELDER TREE.

LINN. Class *Pentandria* ; Order *Trigynia*.

Officinal.—Sambuci flores, The flowers of common elder.

Analysis ‡.—Fatty oil and ammonia have been detected in the flowers. The berries contain sugar ; malic acid.

Medicinal properties.—Diaphoretic, cathartic.

* Pelletier and Caventou.

† Pelletier.

‡ Fée.

UMBELLIFERÆ.

PIMPINELLA ANISUM.—THE ANISE PLANT.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Anisi semina, Anise seed.

Analysis *.—Fatty oil, soluble in alcohol; *anisulmine* ; acetate of lime ; hydro-chlorate of lime ; malate of lime ; *phyteumacolle* ; mucus ; gum ; malic acid ; salts ; resin ; subresin ; volatile oil ; silica ; oxide of iron ; *gommine*.

Medicinal properties.—Stimulant, stomachic.

CARUM CARUI.—THE CARAWAY PLANT.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Carui semina, Caraway seeds.

Analysis.—No accurate analysis has been made, but their medical properties probably depend upon the volatile oil contained in the seeds.

Medicinal properties.—Stimulant and stomachic.

ANETHUM FÆNICULUM.—FENNEL.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Fæniculi semina, Sweet fennel seeds.

Analysis †.—Green volatile oil ; mucilaginous extract ; resinous extract.

Medicinal properties.—Stomachic.

ANETHUM GRAVEOLENS.—DILL.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Anethi semina, Common dill seed.

Analysis ‡.—Volatile oil ; resinous extract ; mucilaginous extract.

Medicinal properties.—Stomachic.

CUMINUM CYMINUM.—THE CUMIN.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Cumini semina, Cumin seed.

* Brandes and Reimann.

† Neumann.

‡ Neumann.

Analysis.—A large quantity of a yellow volatile oil, upon which the sensible and medicinal properties depend.

Medicinal properties.—Stomachic, and, applied externally, stimulant.

CORIANDRUM SATIVUM.—THE CORIANDER.

LINN. Class *Pentandria*; Order *Digynia*.

Officinal.—Coriandri semina, Coriander seed.

Analysis.—Volatile oil, and probably a fætid volatile principle.

Medicinal properties.—Stomachic.

CONIUM MACULATUM—THE COMMON HEMLOCK.

LINN. Class *Pentandria*; Order *Digynia*.

Officinal.—Conii folia, Hemlock leaves.

*Analysis**.—*Coneine* or *cicutine*; odoriferous volatile oil; albumen; resin; colouring matter; salts.

Medicinal properties.—Narcotic, antispasmodic, sedative. Applied externally to cancers.

Hemlock is a narcotico-acrid *poison*, which when taken in a large dose causes delirium, vertigo, convulsions, coma, and sometimes paralysis.

Morbid appearances.—The vessels of the head congested, and the blood in a fluid state.

DAUCUS CAROTA.—THE CARROT.

LINN. Class *Pentandria*; Order *Digynia*.

Officinal.—Dauci (*hortensis*) radix, The root of the garden carrot; Dauci (*agrestis*) semina, The seeds of the wild carrot.

Analysis† of the root—mucilage; sugar. Of the seeds—volatile oil; liquid sugar; malate of lime; yellow colouring matter; sediment.

Medicinal properties.—Root emollient, antiseptic; seeds carminative, diuretic.

BUBON GALBANUM.

LINN. Class *Pentandria*; Order *Digynia*.

Officinal.—Galbani gummi-resina, The gum-resin of the galbanum.

* Brandes.

† Bouillon, Le Grange.

Analysis *.—Resin ; gum ; volatile oil ; malate of lime.

Medicinal properties.—Antispasmodic, emmenagogue.

HERACLEUM GUMMIFERUM.—THE AMMONIA CUM TREE.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Ammoniacum, Ammoniac.

Analysis †.—Gum ; resin ; glutinous matter ; water.

Medicinal properties.—Stimulant, expectorant.

PASTINACA OPOPONAX.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Opoponacis gummi-resina, Opoponax.

Analysis ‡.—Resin ; gum ; starch ; malic acid ; extractive ; woody fibre ; wax ; volatile oil ; caoutchouc.

Medicinal properties.—Emmenagogue.

FERULA ASSAFŒTIDA VEL PERSICA.

LINN. Class *Pentandria* ; Order *Digynia*.

Officinal.—Assafœtidæ gummi-resina, Assafœtida.

Analysis.—Volatile oil ; phosphorus ; sulphur ; resin ; a resinoid substance ; gum ; acetate, malate, sulphate, and phosphate of potassa and lime ; tragacanthine ; extractive, with malate of potassa ; malate of lime with resin ; carbonate of lime ; oxide of iron ; alumina ; water.

Medicinal properties.—Antispasmodic ; expectorant ; emmenagogue ; nervous stimulant ; anthelmintic.

From the *Ferula Persica*, *Sagapenum* has been by some authors supposed to be obtained.

Officinal.—*Sagapenum*, The gum-resin *sagapenum*.

Analysis §.—Resin ; gum ; malate of lime ; bassorine ; volatile oil ; and a peculiar substance in which its medicinal properties reside.

Medicinal properties.—Antispasmodic, expectorant, emmenagogue.

* Pelletier.

† Braconnot.

‡ Pelletier.

§ Pelletier.

RANUNCULACEÆ.

HELLEBORUS NIGER.—THE BLACK HELLEBORE.

LINN. Class *Polyandria* ; Order *Polygynia*.

Officinal.—Hellebori nigri radix, Root of black hellebore.

*Analysis**.—Volatile oil ; fatty oil ; resinous matter ; wax ; an acid ; bitter principle ; mucus ; alum ; gallate of potassa ; gallate of lime ; salts having ammonia for a base.

Medicinal properties.—Drastic cathartic, and emmenagogue.

HELLEBORUS FŒTIDUS.—BEARSFOOT.

LINN. Class *Polyandria* ; Order *Polygynia*.

Officinal.—Hellebori fœtida folia, Leaves of the stinking hellebore.

Analysis.—The fœtid hellebore, according to Vauquelin, contains the same substances as black hellebore ; it is, however, less acrid.

Medicinal properties.—Drastic cathartic, and anthelmintic.

The black and the fœtid hellebore are narcotico-acrid poisons, causing pain in the stomach, vomiting, giddiness, delirium, and convulsions.

Morbid appearances.—The stomach of a black colour ; the lungs gorged with blood ; marks of inflammation in the alimentary canal.

ACONITUM NAPELLUS.—THE MONKSHOOD.

LINN. Class *Polyandria* ; Order *Trigynia*.

Officinal.—Aconiti folia, Leaves of the monkshood.

Analysis†. — Green sediment ; an odoriferous gaseous substance ; hydro-chlorate of ammonia ; carbonate and phosphate of lime ; a peculiar alkali, called *aconitine*, has been discovered by Brandes.

Medicinal properties.—Narcotic.

Monkshood is a narcotico-acrid poison.

Symptoms.—Numbness or tingling of the lips, with a sensation of swelling of the face ; subsultus tendinum ; locked jaw ; delirium, convulsions, vomiting, purging, swelling of the abdomen, and burning of the throat.

Morbid appearances.—Alimentary canal red ; brain and lungs gorged with blood.

* Feneuille and Capron.

† Steenacher.

DELPHINIUM STAPHISAGRIA.—STAVESACRE.

LINN. Class *Polyandria* ; Order *Trigynia*.*Officinal*.—*Staphisagriæ semina*, Stavesacre seed.*Analysis**.—A brown bitter principle ; volatile oil ; fatty oil ; albumen ; animal matter ; a sweet mucus ; a yellow bitter principle ; an alkali termed *delphine* ; salts.*Medicinal properties*.—Drastic cathartic.MENISPERMEÆ.¹

COCCULUS PALMATUS.—THE CALUMBA.

LINN. Class *Diæcia* ; Order *Hexandria*.*Officinal*.—*Calumba*, *Calumba* root.¹*Analysis*†.—Starch ; azotised matter ; bitter yellow matter, which is not precipitated by metallic salts ; volatile oil ; woody fibre ; salts of lime and potassa ; oxide of iron ; silica.*Medicinal properties*.—Tonic.

PAPAVERACEÆ.

PAPAVER SOMNIFERUM.—THE WHITE POPPY.

LINN. Class *Polyandria* ; Order *Monogynia*.*Officinal*.—*Papaveris capsulæ*, Opium. Poppy-heads and opium.*Analysis*‡.—*Narcotine* ; *morphine* ; *meconic acid* ; *meconnine* ; *narceine* ; *paramorphine* ; fatty oil ; a peculiar resin ; a brown acid and extractive matter ; bassorine ; gum ; lignine.*Medicinal properties*.—Narcotic.

Opium is a narcotic poison.

Symptoms.—Heat of the skin and nausea, followed by giddiness, stupor, and insensibility. The countenance is pale, the tongue brown and dry, and the pulse, which in the first instance is excited, becomes feeble, and at length imperceptible. Sometimes convulsions succeed the use of opium, but this very seldom occurs. Copious perspiration, suppression of urine, and constipation, frequently accompany these symptoms.*Morbid appearances*.—Vessels of the brain congested ; watery effusion into the ventricles, and on the surface of the brain ; lungs

* Lassaigue and Feneuille.

† Planche.

‡ Pelletier.

full of blood ; stomach red ; skin livid ; blood unusually fluid. The body putrefies soon after death, and petechiæ are sometimes observed.

PAPAVER RHŒAS.—THE RED POPPY.

LINN. Class *Polyandria* ; Order *Monogynia*.

Officinal.—Rhœados petala, Petals of the red poppy.

Analysis *.—A thick yellow matter ; red colouring matter ; gum ; vegetable fibre.

Medicinal properties.—A colouring matter.

CRUCIFERÆ.

SINAPIS NIGRA.—BLACK OR COMMON MUSTARD.

SINAPIS ALBA.—WHITE MUSTARD.

LINN. Class *Tetradynamia* ; Order *Siliquosa*.

Officinal.—Sinapis semina, Mustard seeds ; sinapis albæ semina, White mustard seed.

Analysis †.—Fixed oil ; volatile oil ; vegetable albumen ; mucilage ; sulphur ; azote ; sulphate of lime ; phosphate of lime ; silica. A peculiar acid, termed *sulpho-sinapic*, has been obtained from the fixed oil contained in white mustard-seed.

Medicinal properties.—Stimulant, emetic, epispastic.

COCHLEARIA ARMORACIA.—THE HORSE RADISH.

LINN. Class *Tetradynamia* ; Order *Siliquosa*.

Officinal.—Armoraciæ radix, Horse-radish Root.

Analysis ‡.—Volatile oil ; albumen ; sulphur ; azote ; phosphates, &c.

Medicinal properties.—Stimulant.

CARDAMINE PRATENSIS.—THE CUCKOO PLANT.

LINN. Class *Tetradynamia* ; Order *Siliquosa*.

Officinal.—Cardamines flores, Cuckoo flowers.

Analysis.—Volatile oil ; fixed oil ; sugar ; azotised matter.

Medicinal properties.—Diuretic, antispasmodic.

* Riffard.

† Thibierge.

‡ Merat and de Lens.

GUTTIFERÆ.

STALAGMITIS CAMBOGIOIDES.—GAMBOGE TREE.

LINN. Class *Polygamia* ; Order *Monœcia*.

GARCINIA CAMBOGIA.—THE GAMBOGE TREE.

LINN. Class *Dodecandria* ; Order *Monogynia*.

Officinal.—Cambogia, Gamboge.

*Analysis**.—Red resin ; acid gum. By distillation it yields acetic acid ; light oil ; brown water ; a heavy brown fatty oil ; charcoal.

Medicinal properties.—Drastic, hydragogue, cathartic ; anthelmintic ; diuretic.

DRYOBALANOPS CAMPHORA.—THE CAMPHOR TREE OF SUMATRA.

LINN. Class *Polyandria* ; Order *Monogynia*.

Officinal.—Camphora, Camphor.

The analysis and medicinal properties of this drug are the same as those of camphor obtained from the *laurus camphora*.

AURANTIACEÆ.

CITRUS AURANTIUM.—THE SEVILLE ORANGE TREE.

LINN. Class *Polyadelphia* ; Order *Icosandria*.

Officinal —Aurantii baccæ et cortex, The fruit and outer rind of the Seville orange.

Analysis†.—The rind contains a volatile aromatic oil. The pulp is composed of citric acid ; malic acid ; citrate of lime ; mucilage ; albumen ; sugar ; water.

Medicinal properties.—The juice of Seville orange is refrigerant and antiseptic. The rind is tonic and stomachic.

CITRUS MEDICA.—THE LEMON TREE.

LINN. Class *Polyadelphia* ; Order *Icosandria*.

Officinal.—Limonum, Lemons. Limonum cortex et oleum, The rind and essential oil of lemons.

* Braconnot.

† Fée.

*Analysis**.—The rind contains an essential oil. The juice consists of *citric acid*; *malic acid*; *mucilage*.

Medicinal properties.—The juice, refrigerant and antiseptic; the rind, tonic and stomachic.

ACIDUM CITRICUM.

Citric acid is obtained from lemon juice.

Medicinal properties.—Refrigerant and antiseptic.

MELIACEÆ.

CANELLA ALBA.—THE CANELLA TREE.

LINN. Class *Dodecandria*; Order *Monogynia*.

Officinal.—Canellæ cortex, Canella bark.

Analysis†.—Resin; volatile oil; extractive matter; colouring matter; gum; starch; albumen; acetate of potassa; acetate of lime; hydrochlorate of magnesia; oxalate of lime.

Medicinal properties.—Tonic and stimulant.

VINIFERÆ.

VITIS VINIFERA.—THE VINE.

LINN. Class *Pentandria*; Order *Monogynia*.

Officinal.—Uvæ passæ, Raisins.

Analysis.—Malic acid; supertartrate of potassa; mucilage; sugar.

Medicinal properties.—Demulcent.

Wine and alcohol are obtained from grape juice which has undergone fermentation. They are stimulants.

By the action of the mineral acids on alcohol, the æther nitricus (nitric ether) and æther sulphuricus (sulphuric ether) are obtained. They are stimulants, diuretics, and antispasmodics.

Supertartrate of potassa is also a product of the grape. In small doses it is diuretic, in large doses cathartic.

By exciting the acetous fermentation in wine, acetum (vinegar) is produced. Distilled vinegar is called *acetic acid*, but this acid is most commonly distilled from wood. Vinegar and acetic acid are refrigerant and diuretic.

* Fée.

† Henri.

OXALIDEÆ.

'OXALIS ACETOSELLA.—WOOD SORREL.

LINN. Class *Decandria* ; Order *Pentagynia*.

Officinal.—Acetosella, Wood sorrel.

Analysis —Superoxalate of potassa in very large quantities ; vegetable substances.

Medicinal properties.—Diuretic ; refrigerant.

Oxalic acid, which may be obtained from this plant, is an acrid poison.

Symptoms.—Violent pain in the stomach and throat, vomiting, inflammation of the tongue and mouth, and sometimes bloody diarrhœa ; the pulse is feeble and the skin cold.

Morbid appearances.—The mucous coat of the alimentary canal eroded, and red or purple ; the outer coat of the stomach and intestines inflamed. In some instances the mucous coat of the stomach is destroyed ; in other cases it has been found in a healthy state.

The *antidote* is carbonate of lime, which forms, with the oxalic acid, an insoluble inert salt.

MALVACEÆ.

MALVA SYLVESTRIS.—THE COMMON MALLOW.

LINN. Class *Monadelphia* ; Order *Polyandria*.

Officinal.—Malva, Common mallow.

Analysis.—This plant is almost entirely composed of mucilage, upon which its medicinal properties depend.

Medicinal properties.—Demulcent ; expectorant.

ALTHÆA OFFICINALIS*.—THE MARSH MALLOW.

LINN. Class *Monadelphia* ; Order *Polyandria*.

Officinal.—Althææ folia et radix, Leaves and root of the marsh mallow.

Analysis †.—Mucus, with malates and other salts, having lime and magnesia for their bases ; extractive, with salts of silica ; inuline ; sediment ; woody fibre ; gluten ; resin.

Medicinal properties.—Expectorant ; demulcent.

* See l'Annuaire de Stoltze, 1825-6.

† Idem.

POLYGALEÆ.

POLYGALA SENEGA.—THE SENEKA, OR RATTLESNAKE PLANT.

LINN. Class *Diadelphia*; Order *Octandria*.*Officinal*.—Senegæ radix, Seneka root.*Analysis* *.—Fatty oil; volatile oil; gallic acid; wax; an acrid matter; yellow colouring matter; azotised matter; salts. A peculiar principle termed *polygaline*, and an acid called *polygalinic acid*, have been discovered by Peschier.*Medicinal properties*.—Stimulant; expectorant.

KRAMERIA TRIANDRA.—THE RHATANY.

LINN. Class *Tetrandria*; Order *Monogynia*.*Officinal*.—Krameræ radix, Rhatany root.*Analysis* †.—Tannin; gum; sediment; woody fibre; gallic acid; water. A peculiar acid called *krameric acid* is said to have been discovered by Peschier.*Medicinal properties*.—Astringent; tonic.

SIMARUBEÆ.

QUASSIA SIMARUBA.—THE SIMAROUBA TREE.

LINN. Class *Decandria*; Order *Monogynia*.*Officinal*.—Simarubæ cortex, Bark of the mountain damson.*Analysis* ‡.—Resinous matter; volatile oil, having the smell of benzoin; acetate of potassa; ammoniacal salts; malic acid; gallic acid; *quassine*; malate and oxalate of lime; mineral salts; oxide of iron; silica; alumina; woody fibre.*Medicinal properties*.—Tonic.

QUASSIA EXCELSA.—THE QUASSIA TREE.

LINN. Class *Decandria*; Order *Monogynia*.*Officinal*.—Quassia lignum, Quassia wood.*Analysis* §.—The medicinal properties depend upon the bitter extractive called *quassine*.*Medicinal properties*.—Tonic.

* Folchi.

† Vogel.

‡ Morin.

§ Thomson.

RUTACEÆ.

RUTA GRAVEOLENS.—RUE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Rutæ folia, Leaves of rue.

Analysis.—Volatile oil ; vegetable substances.

Medicinal properties.—Antispasmodic ; stimulant ; emmenagogue.

GUAIAACUM OFFICINALE.—THE GUAIAACUM.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Guaiaci resina et lignum, Guaiacum resin and wood.

Analysis of the resin *.—Acidulated water ; thick brown oil ; empyreumatic oil ; charcoal ; carbonic acid gas ; carburetted hydrogen.

Medicinal properties.—Diaphoretic ; diuretic ; purgative ; stimulant.

CUSPARIA FEBRIFUGA.—THE ANGOSTURA.
BONPLANDIA TRIFOLIATA.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Cuspariæ cortex, Angostura or cusparia bark.

Analysis †.—Resin ; a peculiar extractive ; carbonate of ammonia ; volatile oil.

Medicinal properties.—Tonic ; stimulant.

LINACEÆ.

LINUM USITATISSIMUM.—THE COMMON FLAX.

LINN. Class *Pentandria* ; Order *Pentagynia*.

Officinal.—Lini usitatissimi semina, Linseed.

Analysis ‡.—Fatty oil ; mucilage and salts ; extractive and salts ; starch and salts ; wax ; soft resin ; colouring matter with salts ; resin ; albumen ; gluten.

Medicinal properties.—Demulcent, expectorant.

* Brande.

† Thomson.

‡ Meyer.

LINUM CATHARTICUM.—PURGING FLAX.

LINN. Class *Pentandria* ; Order *Pentagynia*.*Officinal*.—Linum Catharticum, Purging flax.*Analysis**.—Bitter green resin ; extractive matter.*Medicinal properties*.—Cathartic.

MYRTINEÆ.

MYRTUS PIMENTA.—THE PIMENTA TREE OR PUMAKE.

LINN. Class *Icosandria* ; Order *Monogynia*.*Officinal*.—Pimentæ baccæ, Jamaica pepper.*Analysis*†.—Volatile oil ; resin ; extractive ; tannin ; gallic acid.*Medicinal properties*.—Stimulant, tonic.

EUGENIA CARYOPHYLLATA.—THE CLOVE TREE.

LINN. Class *Icosandria* ; Order *Monogynia*.*Officinal*.—Caryophylli et oleum, Cloves and their essential oil.*Analysis*‡.—Volatile oil ; extractive and astringent matter ; gum ; resin ; vegetable fibre ; water.A fixed oil, and a peculiar sub-resin called *Caryophylline*, have been discovered by Lodibert.*Medicinal properties*.—Stimulant.

MELALEUCA CAJEPUTI.—THE CAJEPUT.

LINN. Class *Polyadelphia* ; Order *Icosandria*.*Officinal*.—Cajeputi oleum, Cajepu oil.*Analysis*.—Volatile oil ; vegetable substances.*Medicinal properties*.—Antispasmodic, stimulant.

PUNICA GRANATUM.—THE POMEGRANATE.

LINN. Class *Icosandria* ; Order *Monogynia*.*Officinal*.—Granati cortex, Pomegranate bark.*Analysis*§.—Tannin ; matter analogous to wax ; saccharine

* Thomson.

† Idem.

‡ Tromsdorff.

§ Mitouart.

matter, part of which is soluble in alcohol and crystallizable, and part soluble in water, and analogous to mannite; gallic acid.

Medicinal properties.—Astringent, anthelmintic.

ROSACEÆ.

ROSA CANINA.—THE DOG ROSE.

LINN. Class *Icosandria*; Order *Polygynia*.

Officinal.—Rosæ caninæ pulpa, Pulp of the fruit of the dog rose.

*Analysis**.—Saccharine matter; citric acid.

Medicinal properties.—Used to make a confection which has no medicinal property.

ROSA CENTIFOLIA.—THE HUNDRED-LEAVED ROSE.

LINN. Class *Icosandria*; Order *Polygynia*.

Officinal.—Rosæ centifoliæ petala, The petals of the hundred-leaved rose.

Analysis.—A fragrant volatile oil; colouring matter; gallic acid, &c.

Medicinal properties.—Slightly laxative.

ROSA GALLICA.—THE RED ROSE.

LINN. Class *Icosandria*; Order *Polygynia*.

Officinal.—Rosæ gallicæ petala, Petals of the red rose.

Analysis†.—Tannin; gallic acid; colouring matter; volatile oil; fatty matter; albumen; soluble salts of potassa; insoluble salts of lime; silica; oxide.

Medicinal properties.—Astringent, tonic.

TORMENTILLA OFFICINALIS.—THE COMMON TORMENTIL.

LINN. Class *Icosandria*; Order *Polygynia*.

Officinal.—Tormentillæ radix; Tormentil root.

Analysis‡.—Myricine; cerine; resin; tannin; red colouring matter; gummy extract; gum; extractive; volatile oil; woody fibre.

Medicinal properties.—Astringent.

* Duncan.

† Cartier.

‡ Meisner.

PRUNUS DOMESTICA.—THE FRENCH PLUM.

LINN. Class *Icosandria* ; Order *Monogynia*.*Officinal*.—Pruna, Prunes.*Analysis*.—Mucus ; saccharine matter ; malic acid, &c.*Medicinal properties*.—Laxative.

AMYGDALUS COMMUNIS.—THE ALMOND TREE.

LINN. Class *Icosandria* ; Order *Monogynia*.*Officinal*.—Amygdalæ amarae et dulces, Bitter and sweet almonds.*Analysis*.—Of sweet almonds* : water ; an astringent principle ; fixed oil ; albumen ; liquid sugar ; gum ; fibrous matter ; acetic acid.

Bitter almonds contain volatile oil and prussic acid in considerable quantity.

Medicinal properties.—Sweet almond emulsion is expectorant and demulcent ; bitter almonds are narcotic and sedative.

Hydrocyanic or prussic acid is a most powerful narcotic poison.

Symptoms.—A small dose excites nausea and salivation, with pain in the head, with hurried pulse, succeeded by a feeling of anxiety ; ulceration of the mouth is frequently caused by a long continued use of this medicine. When a large dose has been taken, the person staggers, groans, is convulsed, and dies ; the eyes are prominent and the breathing convulsive ; tetanus is sometimes among the symptoms.*Morbid appearances*.—The eyes bright and staring, the blood fluid, and exhaling an odour of hydrocyanic acid ; the brain gorged with blood ; the villous coat of the stomach red, and the liver gorged ; the arteries and left side of the heart empty ; the veins and right side full.

PYRUS CYDONIA.—THE QUINCE TREE.

LINN. Class *Icosandria* ; Order *Pentagynia*.*Officinal*.—Cydoniæ semina, Quince seeds.*Analysis*.—A very large quantity of mucus ; malic acid ; sediment.*Medicinal properties*.—Demulcent.

* Boullay.

LEGUMINOSÆ.

ASTRAGALUS VERUS.—THE ASTRAGALUS.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Tragacantha, Gum tragacanth.

Analysis *.—A substance analogous to gum arabic ; tragacanthine.

Medicinal properties.—Demulcent, expectorant.

GLYCYRRHIZA GLABRA.—THE LIQUORICE.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Glycyrrhizæ radix, Liquorice root.

Analysis †.—*Glycyrrhizine* ; agédoite ; starch ; albumen ; a fatty resinous acrid oil ; phosphate of lime ; malate of lime and magnesia ; woody fibre.

Medicinal properties.—Expectorant.

DOLICHOS PRURIENS.—COWHAGE.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Dolichi pubes, The hairs of the cowhage pod.

Analysis ‡.—Tannin ; resin.

Medicinal properties.—Anthelmintic.

SPARTIUM SCOPARIUM.—COMMON BROOM.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Spartii cacumina et semina, The tops and seeds of broom.

Analysis.—There is no analysis of the spartium scoparium, but the genista tinctoria, another species of broom, which possesses similar medicinal properties, and probably contains the same substances, has been analysed §, and yields fatty matter ; colouring matter ; brown matter ; chlorophylle ; albumen ; mucilage ; saccharine matter ; wax ; a peculiar astringent principle ; vegetable osmazome ; concrete volatile oil ; fibrous matter.

Medicinal properties.—Diuretic, laxative.

* Bucholz. † Robiquet. ‡ Martius. See Merat and De Lens.
§ See Cadet de Gassicourt.

PTEROCARPUS SANTALINUS.—THE RED SAUNDERS TREE.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Pterocarpi lignum, Red Saunders wood.

*Analysis**.—A red colouring matter called *santaline* ; resinous juice, &c.

No medicinal properties, but is used as a colouring matter.

PTEROCARPUS ERINACEA.—THE KINO TREE.

LINN. Class *Diadelphia* ; Order *Decandria*.

Officinal.—Kino, kino.

Analysis†.—Tannin in very large quantity ; lime.

Medicinal properties.—Astringent.

COPAIFERA OFFICINALIS.—COPAIBA TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Copaiba, Copaiba balsam.

Analysis‡.—Volatile oil ; brown glutinous resin ; yellow resin ; yellow resin with extractive.

Medicinal properties.—Stimulant, diuretic, cathartic.

MYROXYLON PERUIFERUM.—THE PERUVIAN BALSAM TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Balsamum Peruvianum, Peruvian balsam.

Analysis§.—Brown resin nearly insoluble ; brown resin soluble ; a peculiar volatile oil ; benzoic acid ; extractive matter.

Medicinal properties.—Stimulant, expectorant.

MYROXYLON TOLUIFERUM.—THE TOLU BALSAM TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Balsamum tolutanum, balsam of Tolu.

Analysis||.—Resin ; benzoic acid ; volatile oil.

Medicinal properties.—Stimulant, expectorant.

CASSIA SENNA.—THE SENNA TREE.

LINN. Class *Decandria* ; Order *Monogynia*.

Officinal.—Sennæ folia, Senna leaves.

* Pelletier.

‡ Stoltze.

† Duncan. See Merat and De Leus.

§ Idem.

|| Tromsdorff.

Analysis *.—*Cathartine*; chlorophylle; fatty oil; volatile oil; albumen; yellow colouring principle; mucus; malate and tartrate of lime; acetate of potassa, and mineral salts.

Medicinal properties.—Cathartic.

CASSIA FISTULA.—THE PURGING CASSIA.

LINN. Class *Decandria*; Order *Monogynia*.

Officinal.—Cassiae pulpa, Cassia pulp.

Analysis †.—Sugar; gum; a kind of tannin; gluten; colouring matter; water.

Medicinal properties.—Cathartic.

TAMARINDUS INDICA.—THE TAMARIND TREE.

LINN. Class *Monadelphia*; Order *Triandria*.

Officinal.—Tamarindi pulpa, The pulp of tamarinds.

Analysis ‡.—Citric acid; tartaric acid; malic acid; supertartrate of potassa; sugar; gum; vegetable gelatine; spongy matter; water.

Medicinal properties.—Laxative.

HÆMATOXYLON CAMPECHIANUM.—LOGWOOD.

LINN. Class *Decandria*; Order *Monogynia*.

Officinal.—Hæmatoxyli lignum, Logwood.

Analysis §.—Volatile oil; woody fibre; oxide of manganese; tannin; oxide of iron; albumen; phosphate of lime; brown colouring matter; animalized matter; a peculiar resinous matter called *Hæmatine*; acetic acid; phosphate and acetate of lime; chloruret of potassium; sulphate of lime; acetate of potass.

Medicinal properties.—Astringent.

ACACIA VERA.—THE ACACIA.

LINN. Class *Polygamia*; Order *Monœcia*.

Officinal.—Acaciæ gummi, Acacia gum, or gum Arabic.

Analysis ||.—Pure gum; acetate, malate, and phosphate of lime; oxide of iron.

Medicinal properties.—Nutrient; demulcent.

* Lassaigue and Feneuille.
§ Chevreul.

† Henry.

‡ Vauquelin.

|| Vauquelin.

ACACIA CATECHU.—THE CATECHU.

LINN. Class *Polygamia* ; Order *Monœcia*.*Officinal*.—Catechu extractum, Extract of catechu.*Analysis* *.—Tannin ; extractive matter ; mucilage ; insoluble sediment.*Medicinal qualities*.—Astringent.

TEREBINTHACEÆ.

BALSAMODENDRON MYRRHA.—THE MYRRH TREE.

LINN. Class *Octandria* ; Order *Monogynia*.*Officinal*.—Myrrha, Myrrh, a gum-resin.*Analysis* †.—Etherial oil ; soft resin ; subresin ; tragacanthine ; gum, with traces of benzoic and malic acids ; phosphate and sulphate of potassa ; salts of lime ; animal matter.*Medicinal properties*.—Stimulant ; expectorant ; tonic ; emmenagogue.

BOSWELLIA SERRATA.—THE FRANKINCENSE TREE.

LINN. Class *Dodecandria* ; Order *Monogynia*.*Officinal*.—Olibanum, a gum-resin, frankincense.*Analysis* ‡.—Volatile oil ; resin ; gum ; glutinous matter.*Medicinal properties*.—Stimulant.

PISTACIA TEREBINTHUS.—THE TREE WHICH YIELDS CHIAN TURPENTINE.

LINN. Class *Diœcia* ; Order *Pentandria*.*Officinal*.—Terebinthina Chia, Chian turpentine.*Analysis*.—Volatile oil ; resin, &c.*Medicinal properties*.—Stimulant ; diuretic ; anthelmintic ; cathartic.

PISTACIA LENTISCUS.—THE MASTICH TREE.

LINN. Class *Diœcia* ; Order *Pentandria*.*Officinal*.—Mastiche, Mastic.*Analysis* §.—Resin ; a peculiar substance resembling caoutchouc.*Medicinal properties*.—Slightly stimulant.

* Davy.

† Brandes.

‡ Braconnot.

§ Van Mons.

RHUS TOXICODENDRON.—THE POISON OAK OR SUMACH.

LINN. Class *Pentandria* ; Order *Trigynia*.

Officinal.—Toxicodendri folia, Leaves of the sumach or poison oak.

Analysis *.—Gum ; resin ; gallic acid ; tannin ; green fæcula ; hydrocarbon, very combustible.

Medicinal properties.—Epispastic ; nervous stimulant.

The poison oak is an acrid poison, which produces nearly the same effects as euphorbium, &c.

AMYRIS ELEMIFERA.—THE ELEMI TREE.

LINN. Class *Octandria* ; Order *Monogynia*.

Officinal.—Elemi, Elemi.

Analysis †.—Resin ; a resinoid substance ; volatile oil ; bitter extractive ; an acid.

Medicinal properties.—Stimulant.

RHAMNEÆ.

RHAMNUS CATHARTICUS.—THE PURGING BUCKTHORN.

LINN. Class *Pentandria* ; Order *Monogynia*.

Officinal.—Rhamni baccæ, Buckthorn berries.

Analysis ‡.—Acetic acid ; malic acid ; green colouring matter ; brown colouring matter.

Medicinal properties.—Cathartic.

* Van Mons.

† Bonastre.

‡ Hubert.

MEDICINAL SUBSTANCES

DERIVED FROM THE MINERAL KINGDOM.

ALUMEN.—ALUM.

Officinal.—ALUMEN; SUPERSULPHAS ALUMINÆ ET POTASSÆ.—Alum.

ALUMEN EXSICCATUM.—Dried Alum.

LIQUOR ALUMINIS COMPOSITUS.—Compound Solution of Alum.

Medicinal properties.—Astringent.

The compound solution of alum, which is a combination of alum and zinc, is only used externally.

AMMONIA.—AMMONIA.

Officinal.—AMMONIÆ MURIAS.—Muriate of Ammonia, or, Sal Ammoniac.

Medicinal properties.—Stimulant, refrigerant, cathartic, diaphoretic.

LIQUOR AMMONIÆ.—Solution of Ammonia.

AMMONIÆ SUBCARBONAS.—Subcarbonate of Ammonia.

LIQUOR AMMONIÆ SUBCARBONATIS.—Solution of Subcarbonate of Ammonia.

AMMONIÆ CARBONAS.—Carbonate of Ammonia.

Medicinal properties.—These preparations of ammonia are nervous stimulants, diaphoretics, antacids, antispasmodics.

Note.—As ammonia and potassa resemble minerals in most of their properties, I have placed them among substances belonging to the mineral kingdom, notwithstanding the former is an animal as well as a mineral production, and the salts of the latter are obtained from vegetables.

LIQUOR AMMONIÆ ACETATIS.—Solution of Acetate of Ammonia.

Medicinal properties.—Acetate of ammonia is diaphoretic, diuretic, and refrigerant.

ANTIMONIUM.—ANTIMONY.

Officinal.—ANTIMONII SULPHURETUM PRÆCIPITATUM.—Precipitated Sulphuret of Antimony.

Medicinal properties.—Precipitated sulphuret of antimony is diaphoretic.

ANTIMONIUM TARTARIZATUM.—Tartarized Antimony.

VINUM ANTIMONII TARTARIZATI.—Wine of Tartarized Antimony.

Medicinal properties.—Diaphoretic, emetic, cathartic, or sedative, according to the dose.

PULVIS ANTIMONIALIS.—Antimonial Powder.

Medicinal properties.—Diaphoretic.

Tartarized antimony is a poison which excites bloody vomiting, diarrhoea, burning pain at the pit of the stomach, colic, and a sense of tightness in the throat.

Morbid appearances.—Redness of the stomach and intestines.

ARGENTUM.—SILVER.

Officinal.—ARGENTI NITRAS.—Nitrate of Silver.

Medicinal properties.—Stimulant, tonic, epispastic, caustic.

Nitrate of silver is a corrosive poison, which excites violent irritation in the stomach and intestinal canal.

Morbid appearances.—The villous coat of the stomach softened, and corroded with greyish spots.

ARSENICUM.—ARSENIC.

Officinal.—ARSENICUM ALBUM SUBLIMATUM.—Sublimed White Arsenic.

LIQUOR ARSENICALIS.—Arsenical solution.

Medicinal properties.—White arsenic is used for the purpose of making liquor arsenicalis, which is a tonic. Arsenic is a corrosive poison.

Symptoms.—Burning in the throat, with a sense of constriction in the œsophagus; nausea; vertigo; pain in the stomach; vomit-

ing, which is frequently bloody; tongue parched; pulse quick; violent thirst; respiration difficult; tremors; cramps; flushed countenance; the body spotted and swollen; and, in some cases, delirium and convulsions, with or without intestinal disturbance. Should the patient recover, a vesicular eruption usually appears.

When a large portion of arsenic is applied externally, a local inflammation is induced, together with the constitutional symptoms.

Morbid appearances.—Redness and ulceration of the villous and other coats of the alimentary canal; effusion of coagulable lymph on the inner coat of the stomach, and extravasation of blood among its contents; congestion of the lungs; redness of the pleura, and of the lining of the trachea: the blood is fluid.

BISMUTHUM.—BISMUTH.

Officinal.—BISMUTHI SUBNITRAS.—Subnitrate of Bismuth.

Medicinal properties.—Antispasmodic.

It is an active poison.

Symptoms.—Burning in the throat; vomiting; purging; cramps; intermittent pulse; cold extremities; dryness of the membrane of the nose; difficult deglutition, and suppression of urine; hiccup; laborious respiration; and swelling of the face and belly.

Morbid appearances.—The pharynx and alimentary canal red, livid, or gangrenous.

CALX.—LIME.

Officinal.—LIQUOR CALCIS.—Lime Water.

Medicinal properties.—Antacid.

CALCIS MURIAS.—Muriate of Lime.

LIQUOR CALCIS MURIATIS.—Solution of Muriate of Lime.

Medicinal properties.—Tonic.

CRETA PRÆPARATA.—Prepared Chalk.

Medicinal properties.—Antacid and astringent.

CUPRUM.—COPPER.

Officinal.—CUPRUM AMMONIATUM.—Ammoniated Copper.

Medicinal properties.—Tonic, antispasmodic.

LIQUOR CUPRI AMMONIATI.—Solution of Ammoniated Copper.

Medicinal properties.—Epispastic, tonic.

CUPRI SULPHAS.—Sulphate of Copper.

Medicinal properties.—Tonic, astringent, emetic.

The salts of copper are poisonous.

Symptoms.—Vomiting; purging; colic; insensibility; convulsions; and sometimes tetanus or palsy.

Morbid appearances.—Redness, ulceration, or gangrene of the villous coat of the stomach and intestines.

FERRUM.—IRON.

Officinal.—FERRI SULPHAS.—Sulphate of Iron.

FERRI SUBCARBONAS.—Subcarbonate of Iron.

TINCTURA FERRI MURIATIS.—Tincture of Muriate of Iron.

FERRUM AMMONIATUM.—Ammoniated Iron.

TINCTURA FERRI AMMONIATI.—Tincture of Ammoniated Iron.

LIQUOR FERRI ALKALINI.—Solution of Alkaline Iron.

FERRUM TARTARIZATUM.—Tartarized Iron.

VINUM FERRI.—Wine of Iron.

Medicinal Properties.—All the salts and preparations of iron are tonic, emmenagogue, and anthelmintic.

HYDRARGYRUM.—MERCURY.

Officinal.—HYDRARGYRUM CUM CRETA.—Mercury with Chalk.

Medicinal properties.—Cathartic, secretory stimulant.

HYDRARGYRI OXYDUM RUBRUM.—Red Oxide of Mercury.

Medicinal properties.—Cathartic and secretory stimulant. Its operation being very violent, it is seldom prescribed.

HYDRARGYRI NITRICO-OXYDUM.—Nitric Oxide of Mercury.

Medicinal properties.—Epispastic.

HYDRARGYRI OXYMURIAS.—Corrosive Sublimate. Oxymuriate, or Perchloride of Mercury.

Medicinal properties.—Secretory stimulant.

LIQUOR HYDRARGYRI OXYMURIATIS.—Solution of Oxymuriate of Mercury.

Medicinal properties.—Secretory stimulant, and epispastic.

HYDRARGYRI SUBMURIAS.—Submuriate or Protochloride of Mercury. Calomel.

Medicinal properties.—Cathartic, secretory stimulant, anthelmintic.

HYDRARGYRI OXYDUM CINEREUM.—Grey Oxide of Mercury.
Medicinal properties.—Secretory stimulant, epispastic.

HYDRARGYRUM PRÆCIPITATUM ALBUM.—White Precipitated Mercury.

Medicinal properties.—Epispastic.

HYDRARGYRI SULPHURETUM NIGRUM.—Black Sulphuret of Mercury. An inert preparation.

HYDRARGYRI SULPHURETUM RUBRUM.—Red Sulphuret of Mercury.

Medicinal properties.—Used for fumigation. It is a secretory stimulant.

The acrid preparations of mercury, such as corrosive sublimate, are active poisons, which cause heat in the pharynx and œsophagus, violent pain in the stomach, vomiting and purging, often of blood, salivation, anxiety, swelling of the internal part of the mouth, tremors, cold perspirations, and convulsions.

The milder preparations excite salivation, and swelling of the lower jaw, accompanied by fever; and sometimes sloughing of the soft parts of the body, and disease of the bones are consequences of long perseverance in the use of this metal.

Another effect of mercury is the Shaking Palsy; the *symptoms* of which are, tremors of the limbs, difficulty in walking or speaking, loss of memory, sleeplessness, and delirium. The skin is dry, and has a brown hue; the pulse usually, though not always, slow. Death rarely occurs from this disease.

MAGNESIA.—MAGNESIA.

Officinal.—MAGNESIÆ SUBCARBONAS.—Subcarbonate of Magnesia.

Medicinal properties.—Magnesia and its subcarbonate are antacid and cathartic.

MAGNESIÆ SULPHAS.—Sulphate of Magnesia.

Medicinal properties.—Cathartic.

PHOSPHORUS.—PHOSPHORUS.

Medicinal properties.—Stimulant.

ACIDUM PHOSPHORICUM.—Phosphoric Acid.

Medicinal properties.—Refrigerant, tonic.

Phosphorus is a poison, which excites vomiting, with pain in the

stomach, and tenderness and distension of the abdomen, sometimes accompanied by bloody urine, convulsions, and delirium.

Morbid appearances.—Similar to those which are caused by other corrosive poisons.

PLUMBUM.—LEAD.

Officinal.—PLUMBI ACETAS.—Acetate of Lead.

Medicinal properties.—Astringent and sedative.

LIQUOR PLUMBI SUBACETATIS.—Solution of Subacetate of Lead.

Medicinal properties.—Refrigerant when applied externally.

Lead is a poison, which may excite irritation in the alimentary canal, or palsy, with pain and tenderness of the parts affected, and colic, may result from exposure to its influence. This disease is the Colica Pictonum, Colic of Poitou, or Lead Colic. In some cases palsy exists without colic; in others, colic without any paralytic affection. In all the diseases caused by lead, delirium, convulsions, and coma usually precede death.

Morbid appearances.—When there have been symptoms of irritation of the alimentary canal the villous coat of the stomach and intestines are marked by inflammation. When colic has been the leading symptom, the colon has been found much contracted, while the mucous coat of the intestines is perfectly healthy.

In those who have been affected by the paralytic symptoms, the muscles are of a peculiar pale colour; and when the disease is of long duration, mesenteric disease is observed.

POTASSA.—POTASH.

Officinal.—POTASSÆ SUBCARBONAS.—Subcarbonate of Potash.

Medicinal properties.—Antacid and diuretic.

POTASSÆ CARBONAS.—Carbonate of Potash.

Medicinal properties.—Antacid, diuretic.

LIQUOR POTASSÆ.—Solution of Potash.

Medicinal properties.—Antacid, diuretic.

POTASSA FUSA.—Fused Potash.

POTASSA CUM CALCE.—Potash with Lime.

Medicinal properties.—Epispastic, caustic.

Caustic potass is a corrosive poison.

POTASSÆ HYDRIODAS.—Hydriodate of Potash.

Medicinal properties.—Secretory stimulant.

POTASSÆ ACETAS.—Acetate of Potash.

Medicinal properties.—In small doses diuretic, in large ones cathartic.

POTASSÆ SUPERTARTRAS.—Supertartrate of Potash.

Medicinal properties.—In small doses diuretic, in large ones cathartic.

From supertartrate of potash, ACIDUM TARTARICUM — Tartaric Acid, is obtained.

Medicinal properties.—Refrigerant.

POTASSÆ TARTRAS.—Tartrate of Potash.

Medicinal properties.—Cathartic.

POTASSÆ SUPERSULPHAS.—Supersulphate of Potash.

Medicinal properties.—Cathartic.

POTASSÆ SULPHAS.—Sulphate of Potash.

Medicinal properties.—Cathartic.

POTASSÆ NITRAS.—Nitrate of Potash.

Medicinal properties.—Diuretic, refrigerant.

ACIDUM NITRICUM.—Nitric Acid, is obtained from nitre.

Medicinal properties.—Strong nitric acid is a caustic, but when diluted it is tonic and refrigerant.

Nitric acid is a corrosive poison, which produces the same effect upon man as oxalic acid. The muriatic and sulphuric acids, of which I shall presently speak, resemble nitric acid in their operation, both as medicines and poisons.

SODA.—SODA.

Officinal.—SODÆ BORAS.—Borate of Soda or Borax.

Medicinal properties.—Diuretic, but principally used as a stimulant application to aphthæ in the mouth.

SODÆ SUBCARBONAS.—Subcarbonate of soda.

SODÆ CARBONAS.—Carbonate of soda.

SODÆ SUBCARBONAS EXSICCATA.—Dried subcarbonate of soda.

Medicinal properties.—The subcarbonate, carbonate, and dried subcarbonate of soda are diuretic and antacid.

SODÆ MURIAS.—Muriate of soda.—Common Salt.

Medicinal properties.—Cathartic.

ACIDUM MURIATICUM.—Muriatic Acid, is obtained from common salt.

Medicinal properties.—Tonic, refrigerant.

SODÆ SULPHAS.—Sulphate of Soda.

Medicinal properties.—Cathartic.

SODA TARTARIZATA.—Tartarized soda.

Medicinal properties.—Cathartic.

STANNUM.—TIN.

Officinal.—LIMATURA STANNI.—Tin Filings.

Medicinal properties.—Anthelmintic. It is, however, seldom prescribed. The salts of tin are poisonous, and excite vomiting, colic, and diarrhœa.

Morbid appearances.—Signs of irritation in the stomach; the villous coat having a peculiar tanned appearance.

SULPHUR.—SULPHUR.

Officinal.—OLEUM SULPHURATUM.—Sulphurated Oil.

Medicinal properties.—Epispastic.

POTASSÆ SULPHURETUM.—Sulphuret of Potash.

Medicinal properties.—Cathartic, diaphoretic.

SULPHUR LOTUM.—Washed Sulphur.

SULPHUR PRÆCIPITATUM.—Precipitated Sulphur.

Medicinal properties.—Diaphoretic, cathartic.

ACIDUM SULPHURICUM.—Sulphuric Acid is obtained from sulphur.

Medicinal properties.—Diluted sulphuric acid is tonic and refrigerant.

ZINCUM.—ZINC.

Officinal.—CALAMINA PRÆPARATA.—Prepared Calamine.

Medicinal properties.—Astringent.

ZINCI SULPHAS.—Sulphate of Zinc.

Medicinal properties.—Tonic, astringent, emetic.

ZINCI OXYDUM.—Oxide of Zinc.

Medicinal properties.—Tonic.

Sulphate of zinc is a poison, occasioning pain in the stomach, vomiting, and diarrhœa.

Morbid appearances.—Marks of inflammation in the stomach and intestines, which are sometimes contracted.

SUCCINUM.—AMBER,

Which is dug out of the earth, or thrown up by the sea, is evidently, however, of vegetable origin.

Officinal.—ACIDUM SUCCINICUM.—Succinic Acid.

Not used in medicine.

OLEUM SUCCINI.—Oil of Amber.

Medicinal properties.—Stimulant, antispasmodic, epispastic.

Absinthinm	. . . . .	. ʒj. to ʒij.
Acaciæ gummi	. . . . .	. ʒj. to ʒij.
Acetum colchici	. . . . .	. ℥xx. to f ʒj.
Acetum scillæ	. . . . .	. f ʒss. to f ʒj.
Acidum aceticum dilutum †	. . . . .	. f ʒj. to f ʒij.
Acidum benzoicum	. . . . .	. gr. x. to ʒss.
Acidum citricum	. . . . .	. gr. x. to ʒss.
Acidum muriaticum	. . . . .	. ℥v. to ℥xx.
Acidum phosphoricum	. . . . .	. ℥x. to f ʒss.
Acidum nitricum dilutum	. . . . .	. ℥x. to ℥xl.
Acidum tartaricum	. . . . .	. gr. x. to ʒss.
Acidum prussicum (Ph. Dub.)	. . . . .	. ℥ss. to ℥ij.
Acidum sulphuricum dilutum	. . . . .	. ℥x. to ℥xl.
Aconiti folia	. . . . .	. gr. j. to gr. v.
Æther rectificatus	. . . . .	. f ʒss. to f ʒij.
Ærugo vel cupri subacetas	. . . . .	. gr. $\frac{1}{4}$ to gr. ij.
Allii radice succus	. . . . .	. f ʒj. to ʒij.
Aloes spicatæ extractum	. . . . .	. gr. v. to gr. xv.
Alumen	. . . . .	. gr. v. to ʒj.
Ammoniacum	. . . . .	. gr. x. to ʒj.
Ammoniæ murias	. . . . .	. gr. x. to ʒj.
Ammoniæ subcarbonas	. . . . .	. gr. v. to ʒj.
Anethi semina	. . . . .	. gr. xv. to ʒj.
Anisi semina	. . . . .	. gr. xv. to ʒj.
Anthemidis flores	. . . . .	. ʒj. to ʒij.
Antimonii sulphuretum	. . . . .	. gr. v. to gr. x.
Antimonii sulphuretum præcipitatum	. . . . .	. gr. j. to gr. iij.
Antimonium tartarizatum, <i>diaphoretic</i>	. . . . .	. gr. $\frac{1}{8}$ to gr. ss.

* For the manner of preparing drugs, see Phillips's Translation of the London Pharmacopœia. The doses mentioned in this table are for adults, those for children being much smaller.

† The acids should be considerably diluted when taken.

Antimonium tartarizatum, <i>emetie</i>	. gr. j. to gr. ij.
Aqua anethi	. f ʒj to ʒiv.
Aqua carui	. f ʒj. to ʒiv.
Aqua cinnamomi	. f ʒj. to ʒiv.
Aqua fœniculi	. f ʒj. to ʒiv.
Aqua menthæ piperitæ	. f ʒj. to ʒiv.
Aqua menthæ viridis	. f ʒj. to ʒiv.
Aqua pimentæ	. f ʒj. to ʒiv.
Aqua pulegii	. f ʒj. to ʒiv.
Argenti nitras	. gr. $\frac{1}{8}$ to gr. ij.
Arsenicum album sublimatum	. gr. $\frac{1}{12}$ to gr. $\frac{1}{8}$.
Armoraciæ radix	. ʒj. to ʒj.
Assafoetidæ gummi resina	. gr. v. to ʒj.
Balsamum Peruvianum	. gr. x. to ʒss.
Balsamum Tolutanum	. gr. x. to ʒss.
Belladonnæ folia	. gr. ss. to gr. v.
Benzoinum	. gr. x. to ʒss.
Bismuthi subnitras	. gr. v. to gr. x.
Bistortæ radix	. gr. x. to ʒj.
Cajuputi oleum	. m̄j. to m̄iv.
Calami radix	. gr. x. to ʒj.
Calumbæ radix	. gr. x. to ʒj.
Cambogia	. gr. v. to gr. x.
Camphora	. gr. ij. to ʒss.
Canellæ cortex	. gr. x. to ʒss.
Cantharis	. gr. ss. to gr. j.
Capsici baccæ	. gr. ij. to gr. x.
Cardamines flores	. ʒj. to ʒij.
Cardamomi semina	. gr. v. to ʒj.
Carui semina	. ʒj. to ʒj.
Caryophylli	. gr. v. to ʒj.
Caryophylli oleum	. m̄j. to m̄v.
Cascarillæ cortex	. gr. x. to ʒss.
Cassiæ pulpa	. ʒij. to ʒj.
Castoreum	. gr. v. to ʒj.
Catechu extractum	. gr. x. to ʒij.
Centaurii cacumina	. ʒj. to ʒj.
Cetaceum	. gr. xv. to ʒiss.
Cinchonæ cordifoliæ cortex	. gr. x. to ʒj.
Cinchonæ lancifoliæ cortex	. gr. x. to ʒj.
Cinchonæ oblongifoliæ cortex	. gr. x. to ʒj.
Cinchoninæ sulphas	. gr. ij. to gr. vj.
Cinnamomi cortex	. gr. v. to ʒj.
Cinnamomi oleum	. m̄j. to m̄iv.
Colchici radix	. gr. j. to gr. v.

Colocynthis pulpa	. . .	. gr. iij. to ℥ss.
Confectio amygdalarum	. . .	. \text{℥ss. to ℥j.
Confectio aromatica	. . .	. gr. x. to ℥j.
Confectio aurantiorum	. . .	. \text{℥j. to ℥j.
Confectio cassiæ	. . .	. \text{℥j. to ℥j.
Confectio opii	. . .	. gr. x. to ℥ij.
Confectio piperis nigri	. . .	. \text{℥ss. to ℥j.
Confectio rosæ caninæ	. . .	. \text{℥j. to ℥j.
Confectio rosæ gallicæ	. . .	. \text{℥j. to ℥j.
Confectio scammonæ	. . .	. \text{℥j. to ℥j.
Confectio sennæ	. . .	. \text{℥j. to ℥ss.
Conii folia	. . .	. gr. ij. to gr. x.
Contrajervæ radix	. . .	. gr. x. to ℥ss.
Copaiba	. . .	. \text{℥xv. to ℥ss.
Coriandri semina	. . .	. \text{℥j. to ℥j.
Creta præparata	. . .	. gr. x. to ℥ss.
Cubeba	. . .	. \text{℥ss. to ℥jss.
Cumini semina	. . .	. \text{℥j. to ℥j.
Cupri sulphas, <i>tonic</i>	. . .	. gr. $\frac{1}{4}$ to gr. j.
Cupri sulphas, <i>emetic</i>	. . .	. gr. v. to gr. xv.
Cuprum ammoniatum	. . .	. gr. ss. to gr. iij.
Cuspariæ cortex	. . .	. gr. v. to ℥j.
Dauci semina	. . .	. \text{℥j. to ℥j.
Decoctum aloes compositum	. . .	. f ℥ss. to f ℥jss.
Decoctum cinchonæ	. . .	. f ℥j. to ℥ij.
Decoctum dulcamaræ	. . .	. f ℥ss. to f ℥j.
Decoctum lichenis	. . .	. f ℥ij. to f ℥ij.
Decoctum sarsaparillæ	. . .	. f ℥ij. to f ℥iv.
Decoctum sarsaparillæ compositum	. . .	. f ℥ij. to f ℥iv.
Decoctum senegæ	. . .	. f ℥j. to f ℥ij.
Decoctum ulmi	. . .	. f ℥ij. to ℥iv.
Digitalis folia	. . .	. gr. ss. to gr. iij.
Dolichi pubes	. . .	. gr. v. to gr. x.
Extractum aconiti	. . .	. gr. ss. to gr. ij.
Extractum aloes	. . .	. gr. v. to gr. xv.
Extractum anthemidis	. . .	. gr. x. to ℥j.
Extractum belladonnæ	. . .	. gr. ss. to gr. ij.
Extractum cinchonæ	. . .	. gr. x. to ℥j.
Extractum cinchonæ resinosum	. . .	. gr. x. to ℥j.
Extractum colocynthis	. . .	. gr. v. ℥j.
Extractum colocynthis comp.	. . .	. gr. v. to gr. xv.
Extractum conii	. . .	. gr. ij. to gr. x.
Extractum elaterii	. . .	. gr. ss. to g. j.
Extractum gentianæ	. . .	. gr. v. to ℥j.
Extractum hæmatoxyli	. . .	. gr. x. to ℥ss.

Extractum humuli	gr. v. to ℥j.
Extractum hyoscyami	gr. ij. to gr. x.
Extractum jalapæ	gr. x. to ℥j.
Extractum lactucæ	gr. ij. to gr. x.
Extractum opii	gr. j. to gr. iij.
Extractum papaveris	gr. ij. to gr. x.
Extractum rhei	gr. v. to ℥j.
Extractum sarsaparillæ	gr. x. to ℥j.
Extractum stramonii	gr. $\frac{1}{4}$ to gr. j.
Extractum taraxaci	gr. x. to ℥j.
Ferri sulphas	gr. j. to gr. v.
Ferri subcarbonas	gr. v. to ℥j.
Ferrum ammoniatum	gr. iij. to gr. x.
Ferrum tartarizatum	gr. v. to ℥j.
Filicis radix	℥j. to ℥ij.
Fœniculi semina	℥j. to ℥j.
Galbani gummi-resina	gr. v. to gr. xv.
Gentianæ radix	gr. v. to ℥j.
Granati cortex	℥j. to ℥j.
Guaiaci resina	gr. x. to ℥j.
Helenium	gr. x. to ℥ij.
Hellebori fœtidi folia	gr. v. to ℥j.
Hellebori nigri radix	gr. v. to ℥j.
Humuli strobili	gr. iij. to ℥j.
Hydrargyri oxydum cinereum	gr. i. to gr. iij.
Hydrargyri oxydum rubrum	gr. ss. to gr. j.
Hydrargyri oxymurias	gr. $\frac{1}{8}$ to gr. $\frac{1}{4}$.
Hydrargyri submurias, <i>alterative</i>	gr. ss. to gr. j.
Hydrargyri submurias, <i>cathartic</i>	gr. iij. to gr. x.
Hydrargyri sulphuretum nigrum	gr. v. to ℥j.
Hydrargyrum cum cretâ	gr. iij. to gr. x.
Hyoscyami folia	gr. iij. to gr. x.
Jalapæ radix	gr. x. to ℥j.
Infusum anthemidis	f ℥j. to f ℥ij.
Infusum armoraciæ compositum	f ℥j. to f ℥ij.
Infusum aurantii compositum	f ℥j. to f ℥ij.
Infusum calumbæ	f ℥j. to f ℥ij.
Infusum caryophyllorum	f ℥j. to f ℥ij.
Infusum cascarillæ	f ℥j. to f ℥ij.
Infusum catechu compositum	f ℥j. to f ℥ij.
Infusum cinchonæ	f ℥j. to f ℥ij.
Infusum cuspariæ	f ℥j. to f ℥ij.
Infusum digitalis	f ℥j. to f ℥ss.
Infusum gentianæ compositum	f ℥ss. to f ℥ij.
Infusum quassiæ	f ℥ss. to f ℥ij.

Infusum rhei	f ℥ss. to f ℥ij.
Infusum rosæ compositum	f ℥ss. to ℥ij.
Infusum sennæ compositum	f ℥ss. to ℥ij.
Infusum simaroubæ	f ℥ss to f ℥ij.
Ipecacuanhæ radix, <i>diaphoretic</i>	gr. ss. to gr. ij.
Ipecacuanhæ radix, <i>emetic</i>	gr. v. to ℥j.
Iodina	gr. ss. to gr. iij.
Juniperi baccae	℥j. to ℥j.
Kino	gr. x. to ℥ss.
Lauri baccae et folia	gr. x. to ℥j.
Lichen	℥j. to ℥j.
Linum catharticum	℥j. to ℥j.
Liquor ammoniæ	℥v. to ℥xx.
Liquor ammoniæ acetatis	f ℥ij. to f ℥ss.
Liquor ammoniæ subcarbonatis	℥xx. to f ℥j.
Liquor arsenicalis	℥v. to ℥xx.
Liquor calcis	f ℥j. to f ℥vj.
Liquor calcis muriatis	℥xx. to ℥j.
Liquor ferri alkalini	f ℥ss. to f ℥j.
Liquor hydrargyri oxymuriatis	f ℥ss. to f ℥ij.
Liquor potassæ	℥vij. to f ℥ss.
Liquor potassæ subcarbonatis	℥x. to f ℥j.
Liquor potassæ hydriodatis	℥x. to ℥xx*.
Magnesia	℥j. to ℥j.
Magnesiae subcarbonas	℥j. to ℥j.
Magnesiae sulphas	℥j. to ℥j.
Malva	℥j. to ℥j.
Manna	℥j. to ℥j.
Mastiche	gr. x. to ℥ss.
Marrubium	℥j. to ℥j.
Menyanthes	℥j. to ℥j.
Mezerei cortex	gr. j. to ℥ss.
Mistura ammoniaci	f ℥ss. to f ℥ij.
Mistura assafœtidæ	f ℥ss to f ℥ij.
Mistura camphoræ	f ℥ss. to f ℥ij.
Mistura cornu usti	f ℥ss. to f ℥ij.
Mistura cretæ	f ℥ss. to f ℥ij.
Mistura ferri composita	f ℥ss. to f ℥ij.
Mistura guaiaci	f ℥ss. to f ℥ij.
Mistura moschi	f ℥ss. to f ℥ij.
Morphia	gr. $\frac{1}{8}$ to gr. $\frac{1}{4}$.
Moschus	gr. ij. to ℥j.

* f℥j of this solution contains gr. xxxvi. of hydriodate of potash.

Mucilago acaciæ	.	.	.	.	f 3j. to f 3ss.
Myristicæ nuclei	.	.	.	.	gr. v. to 3ss.
Myrrha	.	.	.	.	gr. x. to 3j.
Oleum amygdalarum	.	.	.	.	f 3ss to f 3j.
Oleum anthemidis	.	.	.	.	mj. to mv.
Oleum anisi	.	.	.	.	mj. to mv.
Oleum carui	.	.	.	.	mj. to mv.
Oleum caryophylli	.	.	.	.	mj. to mv.
Oleum cinnamomi	.	.	.	.	mj. to mv.
Oleum juniperi	.	.	.	.	mj. to mv.
Oleum lavandulæ	.	.	.	.	mj. to mv.
Oleum menthæ piperitæ	.	.	.	.	mij. to mv.
Oleum menthæ viridis	.	.	.	.	mj. to mv.
Oleum origani	.	.	.	.	mj. to mv.
Oleum pimentæ	.	.	.	.	mj. to mv.
Oleum pulegii	.	.	.	.	mj. to mv.
Oleum ricini	.	.	.	.	f 3ij. to f 3j.
Oleum rosmarini	.	.	.	.	mj. to mv.
Oleum succini	.	.	.	.	mv. to mx.
Oleum terebinthinæ rectificatum, <i>diuretic</i>	.	.	.	.	m x. to f 3ss.
Oleum terebinthinæ rectificatum, <i>anthelmintic</i>	.	.	.	.	f 3j. to f 3ss.
Oleum tigllii	.	.	.	.	mss. to mij.
Olibanum	.	.	.	.	gr. x. to 3j.
Opium	.	.	.	.	gr. ½ to gr. iij.
Opopanax	.	.	.	.	gr. x. to 3j.
Origanum	.	.	.	.	gr. x. to 3j.
Oxymel simplex	.	.	.	.	f 3j. to f 3ss.
Oxymel scillæ	.	.	.	.	f 3ss. to 3ij.
Pilulæ aloes compositæ	.	.	.	.	gr. v. to gr. xv.
Pilulæ aloes cum myrrhâ	.	.	.	.	gr. v. to gr. xv.
Pilulæ cambogiæ compositæ	.	.	.	.	gr. v. to gr. xv.
Pilulæ ferri compositæ	.	.	.	.	gr. v. to gr. xv.
Pilulæ galbani compositæ	.	.	.	.	gr. v. to gr. xv.
Pilulæ hydrargyri, <i>alterative</i>	.	.	.	.	gr. ij. to gr. v.
Pilulæ hydrargyri, <i>cathartic</i>	.	.	.	.	3ss. to 3j.
Pilulæ hydrargyri submuriatis compositæ	.	.	.	.	gr. ij. to gr. v.
Pilulæ saponis cum opio	.	.	.	.	gr. iij. to gr. viij.
Pilulæ scillæ compositæ	.	.	.	.	gr. v. to 3ss.
Pimentæ baccae	.	.	.	.	gr. v. to 3j.
Piperis longi fructus	.	.	.	.	gr. v. to 3j.
Piperis nigri baccae	.	.	.	.	gr. v. to 3j.
Piperina	.	.	.	.	gr. ss. to gr. ij.
Plumbi acetas	.	.	.	.	gr. ss. to gr. ij.
Porri radicis succus	.	.	.	.	3j. to 3ss.
Potassæ acetas	.	.	.	.	3j. to 3j.

Potassæ carbonas	. . .	. . ss. to 3ss.
Potassæ nitras	. . .	. gr. v. to ʒj.
Potassæ subcarbonas	. . .	. ss. to 3ss.
Potassæ sulphas	. . .	. ʒj. to ʒij.
Potassæ supersulphas	. . .	. ʒj. to ʒij.
Potassæ supertartras	, . .	. ʒj. to ʒij.
Potassæ tartras	. . .	. 3j. to 3ss.
Pulvis aloes compositus	. . .	. gr. v. to gr. xv.
Pulvis antimonialis	. . .	. gr. j. to gr. vij.
Pulvis cinnamomi compositus	. . .	. gr. v. to gr. x.
Pulvis contrajervæ compositus	. . .	. gr. x. to 3ss.
Pulvis cornu usti cum opio	. . .	. gr. v. to ʒss.
Pulvis cretæ compositus	. . .	. gr. xv. to 3ss.
Pulvis cretæ comp. cum opio	. . .	. gr. x. ʒj.
Pulvis ipecacuanhæ compositus	. . .	. gr. v. to gr. xv.
Pulvis kino compositus	. . .	. gr. v. to ʒj.
Pulvis scammonæe compositus	. . .	. gr. v. to gr. xv.
Pulvis sennæ compositus	. . .	. ʒj. to 3j.
Pulvis tragacanthæ compositus	. . .	. gr. x. to 3ss.
Pyrethri radix	. . .	. gr. iiij. to ʒss.
Quassiæ lignum	. . .	. gr. x. to 3ss.
Quercus cortex	. . .	. gr. x. to 3ss.
Quininæ sulphas	. . .	. gr. j. to gr. iv.
Rhamni baccæ	. . .	. ʒj. to 3j.
Rhei radix	. . .	. gr. v. to gr. xv.
Rosæ caninæ pulpa	. . .	. 3j. to 3j.
Rosmarini cacumina	. . .	. gr. x. to 3ss.
Rubiæ radix	. . .	. ʒss. to 3ss.
Rutæ folia	. . .	. ʒj. to ʒij.
Sabinæ folia	. . .	. gr. v. to gr. x.
Sagapenum	. . .	. gr. x. to ʒj.
Secale cornutum	. . .	. gr. v. to 3ss.
Salicis cortex	. . .	. gr. x. to 3ss.
Sapo durus	. . .	. gr. v. to ʒj.
Sarsaparillæ radix	. . .	. ʒj. to 3j.
Sassafras lignum	. . .	. ʒj. to 3j.
Scammoneæ gummi-resina	. . .	. gr. v. to gr. xv.
Scillæ radix recens	. . .	. gr. iiij. to gr. x.
Scillæ radix exsiccata	. . .	. gr. j. to gr. iv.
Senegæ radix	. . .	. gr. x. to 3ss.
Sennæ folia	. . .	. ʒj. to 3j.
Serpentariæ radix	. . .	. gr. x. to ʒj.
Simaroubæ cortex	. . .	. ʒss. to 3ss.
Sinapis semina	. . .	. ʒj. to ʒij.

Soda tartarizata . . . . .	. 3j. to 3i.
Sodæ carbonas . . . . .	. 3ss. to 3ss.
Sodæ subcarbonas . . . . .	. 3ss. to 3ss.
Sodæ subcarbonas exsiccata . . . . .	. gr. iij. to gr. xv.
Sodæ sulphas . . . . .	. 3j. to 3j.
Spartii cacumina (in decoction) . . . . .	. 3j. to 3j.
Spigeliæ radix . . . . .	. gr. x. to 3ij.
Spiritus ætheris aromaticus . . . . .	. f 3ss. to f 3j.
Spiritus ætheris nitrici . . . . .	. f 3ss. to f 3j.
Spiritus ætheris sulphurici . . . . .	. f 3ss. to f 3j.
Spiritus ætheris sulphurici compositus . . . . .	. f 3ss. to f 3j.
Spiritus ammoniæ . . . . .	. f 3ss. to f 3j.
Spiritus ammoniæ aromaticus . . . . .	. f 3ss. to f 3j.
Spiritus ammoniæ fœtidus . . . . .	. f 3ss. to f 3j.
Spiritus ammoniæ succinatus . . . . .	. ℥x. to ℥xx.
Spiritus anisi . . . . .	. f 3ss. to f 3j.
Spiritus armoraciæ compositus . . . . .	. f 3j. to f 3ss.
Spiritus carui . . . . .	. f 3j. to f 3ij.
Spiritus cinnamomi . . . . .	. f 3j. to 3ij.
Spiritus colchici ammoniatus . . . . .	. f 3ss. to f 3j.
Spiritus juniperi compositus . . . . .	. f 3j. to 3ss.
Spiritus lavandulæ compositus . . . . .	. f 3ss. to f 3ij.
Spiritus menthæ piperitæ . . . . .	. f 3ss. to f 3ij.
Spiritus menthæ viridis . . . . .	. f 3ss. to f 3ij.
Spiritus myristicæ . . . . .	. f 3ss. to f 3ij.
Spiritus pimentæ . . . . .	. f 3ss. to f 3ij.
Spiritus pulegii . . . . .	. f 3ss. to f 3ij.
Spiritus rosmarini . . . . .	. f 3ss. to f 3ij.
Spongia usta . . . . .	. 3ss. to 3j.
Stannum . . . . .	. 3j. to 3ij.
Strychnia . . . . .	. gr. $\frac{1}{8}$ to gr. j.
Staphisagriæ semina . . . . .	. gr. iij. to gr. x.
Styracis balsamum . . . . .	. gr. x. to 3ss.
Sulphur lotum . . . . .	. 3ss. to 3ij.
Sulphur præcipitatum . . . . .	. 3ss. to 3ij.
Syrupus althææ . . . . .	. f 3j. to f 3ij.
Syrupus aurantiorum . . . . .	. f 3j. to f 3ij.
Syrupus limonum . . . . .	. f 3j. to f 3ij.
Syrupus papaveris . . . . .	. f 3ss. to f 3ij.
Syrupus rhamni . . . . .	. f 3j. to f 3j.
Syrupus sennæ . . . . .	. f 3j. to f 3ss.
Tamarindi pulpa . . . . .	. 3ss. to 3j.
Terebinthina Canadensis . . . . .	. 3ss. to 3j.
Terebinthina Chia . . . . .	. 3ss. 3j.
Terebinthina vulgaris, . . . . .	. 3ss. to 3j.

Tinctura aloes	f 3j. to f 3ij.
Tinctura aloes composita	f 3j. to f 3ij.
Tinctura assafœtidæ	f 3j. to f 3ij.
Tinctura aurantii	f 3j. to f 3ij.
Tinctura benzoini composita	f 3j. to f 3ij.
Tinctura calumbæ	f 3j. to f 3ij.
Tinctura camphoræ composita	f 3j. to f 3ij.
Tinctura cantharidis	℥x. to f 3j.
Tinctura capsici	℥x. to f 3j.
Tinctura cardamomi	f 3j. to f 3ij.
Tinctura cardamomi composita	f 3j. to f 3ij.
Tinctura cascarillæ	f 3j. to f 3ij.
Tinctura castorei	f 3j. to f 3ij.
Tinctura catechu	f 3j. to f 3ij.
Tinctura cinchonæ	f 3j. to f 3ij.
Tinctura cinchonæ ammoniata	f 3j. to f 3ij.
Tinctura cinchonæ composita	f 3j. to f 3ij.
Tinctura cinnamomi	f 3j. to f 3ij.
Tinctura cinnamomi, composita	f 3j. to f 3ij.
Tinctura digitalis	℥x. to f 3ss.
Tinctura ferri ammoniati	f 3ss. to f 3ij.
Tinctura ferri muriatis	℥v. to f 3ss.
Tinctura gentianæ composita	f 3j. to f 3ij.
Tinctura guaiaci	f 3ss. to f 3ij.
Tinctura guaiaci ammoniata	f 3ss. to f 3ij.
Tinctura hellebori nigri	℥xv. to f 3j.
Tinctura humuli	f 3ss. to 3ij.
Tinctura hyoscyami	℥xv. to f 3j.
Tinctura iodinii (Ph. Dub.)	℥xv. to ℥xl.
Tinctura jalapæ	f 3j. to 3ij.
Tinctura kino	f 3j. to f 3ij.
Tinctura myrrhæ	f 3ss. to f 3j.
Tinctura opii	℥v. to ℥xl.
Tinctura rhei	f 3j. to f 3ss.
Tinctura rhei composita	f 3j. to f 3ss.
Tinctura scillæ	℥x. to f 3ss.
Tinctura sennæ	f 3j. to f 3ij.
Tinctura serpentariæ	f 3j. to f 3ij.
Tinctura spartii seminum *	f 3j. to f 3iiss.

* Dr. Pearson directs that this tincture shall be made in the following manner:—

R. Spartii juncei seminum contusorum, 3ij.

Spiritus tenuioris, f 3viiij.

Macera per dies decem et cola.

Tinctura valerianæ	.	.	.	f 3j. to f 3ij.
Tinctura valerianæ ammoniata	.	.	.	f 3j. to f 3ij.
Tinctura zingiberis	.	.	.	f 3j. to f 3ij.
Tormentillæ radix	.	.	.	℥ss. to 3ss.
Toxicodendri folia	.	.	.	gr. ss. to gr. iv.
Tragacantha	.	.	.	gr. x. to 3j.
Valerianæ radix	.	.	.	℥j. to 3j.
Veratri radix	.	.	.	gr. j. to gr. ij.
Vinum aloes	.	.	.	f 3j. to f 3ss.
Vinum antimonii tartarizati	.	.	.	℥xx. to f 3ij.
Vinum colchici	.	.	.	℥xx. to 3j.
Vinum ferri	.	.	.	f 3j. to f 3ss.
Vinum ipecacuanhæ, <i>diaphoretic</i>	.	.	.	℥x. to f 3ss.
Vinum ipecacuanhæ, <i>emetic</i>	.	.	.	f 3ij. to f 3ss.
Vinum opii	.	.	.	℥v. to ℥xl.
Vinum veratri	.	.	.	℥v. to 3ss.
Ulmæ cortex	.	.	.	℥j. to 3j.
Uva ursi	.	.	.	gr. x. to 3ss.
Zinci oxydum	.	.	.	gr. j. to gr. v.
Zinci sulphas, <i>tonic</i>	.	.	.	gr. j. to gr. iij.
Zinci sulphas, <i>emetic</i>	.	.	.	gr. x. to ℥j.
Zingiberis radix	.	.	.	gr. v. to 3ss.

THE END.

LONDON :

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[Dr. Pearson's very excellent Tabular Arrangement of the Materia Medica being out of print, it has been found necessary to publish another Syllabus for the use of the Students of the Birmingham School of Medicine, and in doing so the Author begs to acknowledge the kind assistance which he has received from Dr. Pearson, to whose talent and learning this branch of medical science is so much indebted.]

ERRATA.

PAGE

19, *after the words*—COCCUS CACTI.—COCHINEAL,
insert—*Officinal.*—Coccus, Cochineal.

FOR

WRITE

6, Testæ preparatæ . . .	Testæ præparatæ
7, Omnes Medicinæ . . .	Omnia Medicamenta
9, Cajeputi . . .	Cajuputi
11, Opoponax . . .	Opopanax
16, Cholestrine . . .	Cholesterine
17, Accipenser . . .	Acipenser
19, Beomine . . .	Bromine
25, Paragline . . .	Parigline
28, Brande (<i>in the note</i>) .	Brandes
28, De Leus . . .	De Lens
41, Balsam <i>or</i> Peru . . .	Balsam <i>of</i> Peru
43, Lactucanine . . .	Lactucarine
48, Ammonia cum Tree . .	Ammoniacum Tree
—, Pastinaca Opoponax . .	Pastinaca Opopanacis
—, Opoponacis . . .	Opopanacis
—, Opoponax . . .	Opopanax
49, Hellebori fœtida . . .	Hellebori fœtidi
52, Limonum . . .	Limones
55, Quassia lignum . . .	Quassiæ lignum
56, Angostura . . .	Angustura
57, Cajeputi . . .	Cajuputi
61, De Leus (<i>in the note</i>) .	De Lens

ERRORS OF PUNCTUATION.

26, 29, } Bouillon, Le Grange .	Bouillon Le Grange
37, 47 }	
33, Extractive and matter, ren- dered	} Extractive, and matter rendered

The blank space in p. 48 should be filled up by bringing the words
nervous and *stimulant* together, thus :—*nervous stimulant*.

